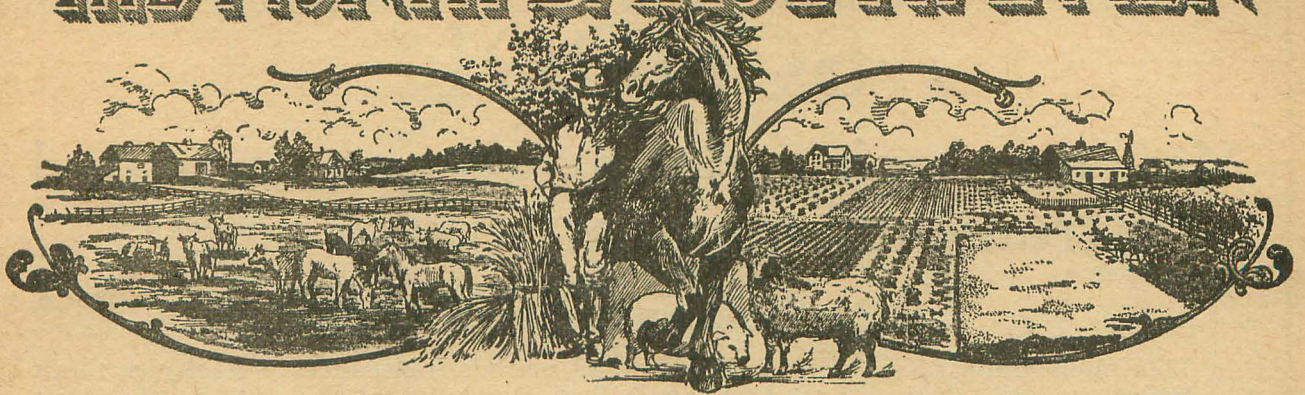


THE NORTH DAKOTA FARMER



"With Malice Toward None"

Lisbon, N. D.

December 15, 1917

Vol. 19, No. 6



Scene on the North Dakota Experiment Station Farm, Fall of 1917

Do you know that North Dakota will receive for her wheat crop this year, at only \$2 a bushel, 72 million dollars more than she did last year; 6 million dollars more for her corn, nearly a million more for her potatoes and within 3 million as much for her oats? With a crop like that of 1915 she would have received 225 million dollars more for her wheat than she received last year.

Now that \$2 a bushel is assured for next year let us duplicate the crop of 1915.

978.4
N814
Graham

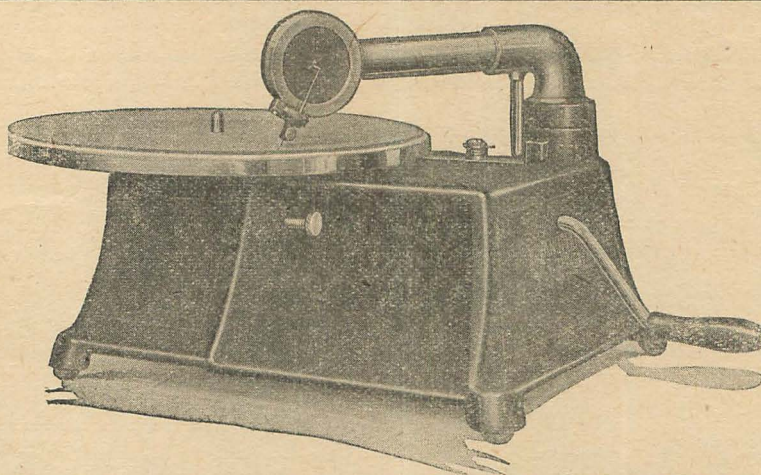
THE HOME AND THE SCHOOL

May now enjoy the masters of vocal and
instrumental music at little or no cost

The VANOPHONE

This phonograph is portable, weighs but 12 pounds, reproduces perfectly (without the hollow, metallic sounds of the brass projectors) instrumental and vocal music of the highest quality. It is no toy. It plays 6-inch, 8-inch, 10-inch or 12-inch standard records. It sells for \$12.

A
MUSIC
MASTER
FOR THE
MASSES



AT
PRACTI-
CALLY
NO
COST

The past summer I played this phonograph beside one costing several times as much and I was surprised to find that the tones were equally pure and distinct. So pleased was I that I determined to offer the Vanophone as a premium for subscribers to my two publications: The North Dakota Farmer and Rotary, and the Pathfinder, all of which should be in every North Dakota school and home.

Here is a letter from the first to take advantage of the above offer:

"I would like to ask you about getting another Vanophone. I want to get one myself and also to supplement the other one that we have in the school. The first one is a great deal better than I expected. Would you be willing to make us another offer like the one you made on the first one or what kind of a proposition will you make? I have an idea that we can get more subscriptions to the North Dakota Farmer and we will be willing to make up a cash sum too. How about it?"

MY OFFER

Simply send me the following subscriptions at the regular subscription price and the Vanophone is yours:

8 Subscriptions to the North Dakota Farmer at \$.75.....	\$ 6.00
10 Subscriptions to the Rotary at \$.50.....	5.00
1 Subscription to the Pathfinder.....	1.00
	\$12.00
Postage and Packing.....	1.00
	\$13.00

For only \$13.00 the Vanophone will be delivered to your door and the above magazines will be sent to one address or separate addresses for one year.

SPECIAL. Should you find that you cannot secure the above number of subscriptions, let me know the number you can secure and I will name a part-cash payment.

W. G. CROCKER, Publisher, Box F, LISBON, NORTH DAKOTA

THE NORTH DAKOTA FARMER

Vol. 19, No. 6

LISBON, N. D., DECEMBER 15, 1917

75 Cents a Year

The Farmer, the Cornerstone of Civilization

By Theodore Roosevelt

(Copyright, 1917, by George H. Doran Company.)

SANDHILL FARMERS PROVE VALUE OF CO-OPERATIVE WORK

People of Country and Town in
Poor North Carolina District
Build Own Warehouses and
Work for Community Prosperity.

By Theodore Roosevelt

(Last number of series)

ARTICLE III.

The Sandhill Farm Life School is an agricultural school, started by the Board of Trade, under the state law. The principles of this school are: (1) That the children shall be trained primarily for life in the country, not by books simply, but by actually doing the various things at school that they will be called upon to do in later life. (2) That the school shall turn out good citizens, taught to cooperate, and with a sense of obligation to their community and their nation. Both these ends are being measurably achieved.

There are eighty scholars in the school. All the work is done by the boys and girls themselves. The boys are under military discipline. They dress in khaki, they belong to a rifle club, they drill. Their instructor was at a Plattsburg camp. Some of the boys were at the Plum Island camp last year.

The boys do all the work of the farm, which deals chiefly with animal industry; and they fire the furnaces, cut wood, build roads, etc. There is some theoretical agriculture and laboratory work; but the emphasis is placed on actually doing the job.

The school is not an institution of "higher learning." It is not intended to turn out boys who will seek clerkships or become school teachers. The effort is to turn out farmers who will farm.

Girls Trained for Housewives

As regards the girls, the effort is to

turn out first-class farmers' wives. They are all dressed in uniforms which they made themselves. They are given a setting-up drill which has proved most beneficial. They do all the housework and cooking, learning

I REMEMBER, I REMEMBER

(1917 Version)

I remember, I remember,
The house where I was born;
The little window where the sun
Came peeping in at morn.
You'd hardly know the old place now,
For dad is up to date
And the farm is scientific
From the back lot to the gate.

The house and barn are lighted
With bright acetylene,
The engine in the laundry
Is run by gasoline.
We have silos, we have autos,
We have dynamos and things;
A telephone for gossip,
And a phonograph that sings.

The hired man has left us,
We miss his homely face;
A lot of college graduates,
Are working in his place,
There's an engineer and fireman,
A chauffeur and a vet,
'Lectrician and mechanic—
Oh, the farm's run right you bet.

The little window where the sun
Came peeping in at morn
Now brightens up a bath room
That cost a car of corn.
Our milkmaid is pneumatic
And she's sanitary too;
But dad gets fifteen cents a quart
For milk that once brought two.
—Canadian Courier.

by actual practice to do it efficiently and economically. In the kitchen they use the implements of the kind they will have in their own houses—not those used in large hotels.

They work hard, but not to the

point of drudgery and exhaustion; and in the evenings they have singing, dancing, games or lectures. Surely this is a school along right lines!

One of the things with which the Board of Trade has grappled is the health problem. As in so many country communities the health of children is below par. Half of them have hookworm; and there are other complaints.

Some day or other we shall follow Germany's lead, in having the government take care of the health of the ordinary citizen—and of his welfare in other respects also—in return for requiring from him training and service to the state in time of war. At present our physical efficiency is low compared with that of Germany; and private organizations have to partially make good the failure of governmental action.

Three years ago the board instituted fairs, the first ever held in the region. A local paper, the "Pinehurst Outlook," describes one of the fairs: There were bands; and parties of girl dancers—an unusual and very pretty feature; and the boy scouts and the boys who had been at the Plum Island camp paraded in company with the Confederate veterans, all escorting the national flag. Everything was by home talent; there wasn't an imported show in the whole fair.

Built Their Own Warehouse

Then there were the usual county fair exhibits; and the girls' canning clubs, and the boys' pig and corn clubs—all managed by the girls and boys who had actually done the work. And there was an exhibition by booths of what the community expected to become; a credit union booth, a co-operative sire owners' association booth, a county hospital booth, a consolidated school booth, etc.

The Board of Trade does not merely write manifestoes. It reduces its preaching to practice. In the fall of 1914 cotton went to six cents a pound, and the situation in the south became critical. Every form of wild relief scheme was suggested. But the Sandhill Board of Trade acted with equal energy and common sense.

It borrowed \$100,000 in Boston, built warehouses at various points in the section and loaned the money on cotton warehouse receipts at eight cents per pound and 6 per cent interest. Collateral was provided by patriotic members of the community. It was a striking case of united com-

munity action for mutual self-protection; something peculiarly needed in the South, and a long step toward the co-operative spirit and away from the "every man for himself and the community be damned" spirit.

The board employs a secretary, who is also a farm demonstrator-agent for the whole section—a farmer's boy, the son of a poor Kansas farmer, who has worked his way thru college, and knows his subject from the ground up no less than from above down. In a recent paper this gentleman put what he was striving to do so well, and what he says is so applicable to so many country communities that I cannot forbear quoting it:

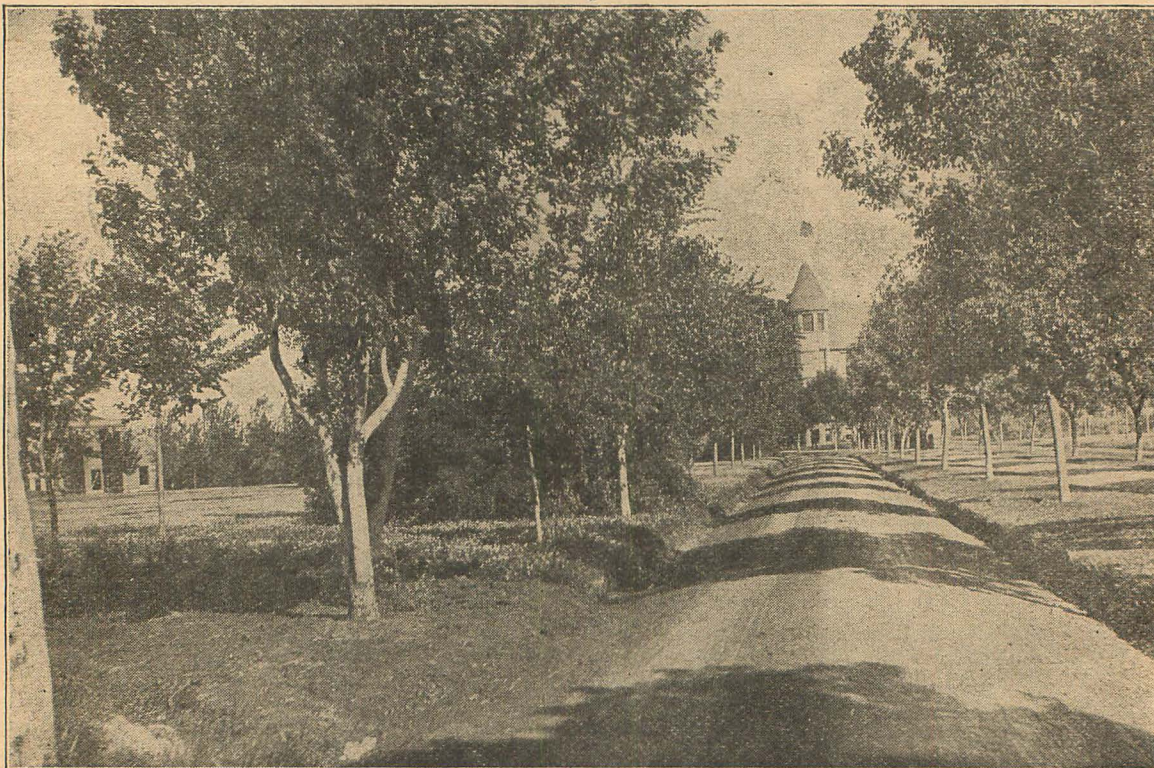
the members of the Sandhill Board of Trade.

Seek More Profitable Methods

"From it you will learn that we divide our work into two parts. The first is the stimulating of immigration by means of advertising. To get our section before the eyes of prospective buyers we have used booklets, magazines, lectures, lantern slides, and exhibits. The second and more important part of our work is to prevent emigration by making our community a place which people cannot afford to leave. The first step toward the accomplishment of this is to work out more profitable methods of crop production, less expensive ways of mar-

a successful farm life school, establish our hospital, get public health work going, and do all else that is mentioned in this circular letter, and which I, like Cicero, now that I have stated the matter pretty fully, shall not mention but 'shall pass over in silence.'"

The secretary, assisted by the county agent, gives many lectures with a stereopticon at the schools, thereby meeting inadvertently one of the greatest needs of southern country life—the need for social life and amusement. They organize those practical children's agricultural clubs—girls' poultry clubs, boys' pig and corn clubs and the like—which are



View of the Administration Building, N. D. A. C., where the Boys' and Girls' Institute was Held, Dec. 3-7, 1917

"Whenever the late Marcus Tully Cicero emptied the Roman Senate in order to fill a modern text-book, he usually devoted a considerable part of his speech to matters which he said, 'I shall pass over in silence.' You have asked me to talk about the use of the local paper in community development. I think I have something to say about the use of the local paper; but just what to do in order to develop a community is a subject that 'I shall pass over in silence.'"

"We Sandhillers are making progress, and much that we are doing is, we trust, worthy of being put into operation elsewhere. If any of you care to know just what we think most worth doing for the development of our section, I will be glad to give you a copy of a circular letter written to

keting, and all else that makes for prosperity, for as wise old Dr. Knapp persistently pointed out, without prosperity all else must fail.

"But this is not enough. The philosophy of the belly will never get a community very far. Statistics prove this, for we find that where farm and village people are making money the fastest there they are going to the cities the fastest, because in the cities they find schools, household comforts, entertainment, society, and other things for which they wish to spend their money while they are well; and when they are sick in the cities they can find something more than antediluvian hospital facilities at something less than multi-millionaire prices.

That is why we are working so hard to improve our rural schools, build up

such forces in the development of the South, where livestock is a necessity to a perfectly balanced farming system, while few farmers can make a success of handling livestock unless they have begun as boys.

Credit Unions Organized

Soil improvement is, of course, one prime object—and the secretary is really applying his ideas, which, I am sorry to say, is too often not the case with theoretically excellent farm demonstration work. In farming the theoretical man can often help the practical man—but if he is merely a theorist, even altho a very well trained theorist, he is much more apt to be wrong than the practical man he starts in to educate. Yet there must be men of vision to lead. In the south the exclusively "practical"

man has gone in for "all cotton" farming; and "all cotton" means a submerged civilization.

The secretary has also organized two credit unions which are working successfully, one at the Derby school and one at the Sandhill Farm Life School. Under the North Carolina credit union laws the farmers can organize associations very similar to the Raiffeisen credit unions of Germany. The treasurer of the one at the Derby school writes me as follows:

"We have loaned out to the farmers this summer about \$400 of their own money. The whole community is tied together on each other's votes. Each man who owns stock or has deposits in the union takes a pretty vital interest in the kind of farming that the men who have borrowed money are doing. It is simply applying the Christian principle to actual life, 'Am I my brother's keeper?' You certainly are if you are a member of a credit union and have gone on his note for money to buy a hog with.

"It is your business to see that he buys a good hog and feeds it properly and doesn't waste the money on an organ or a graphophone, for if he doesn't succeed, then the community and you don't succeed.

"This fall all the loans of my credit union are being paid promptly and in full. I find that the farmers consider their obligations to the credit union of the first importance. For next year we are buying fertilizer co-operatively on money borrowed by the credit union. The farmers are only paying 6 per cent for their loans. In buying from the fertilizer companies they were paying from 10 to 40 per cent.

"I never thought the credit unions would work in this individualistic society, but I am now convinced that if people of education and with the desire to lead will take off their coats and get down and fight the battles of the people out with them, almost anything can be made to succeed."

Working for People's Health

The section stands well in roads, thanks to a leading citizen who combined vision and common sense. He built the first sand-clay road, of a type which is both cheap and serviceable. The first section was built for a quarter of a mile parallel to an old sand road. Then he gave a barbecue to the neighbors; loaded a wagon with far more cotton than anybody present had ever seen pulled by a team before, and sent it up the sand-clay road.

The horses pulled it easily; but as soon as it ended and they reached the sand road they came to a dead halt. This practical demonstration won the

day, and the section is now covered by real roads, built by the people themselves.

What is being done in the Sandhill district along this line is being done on genuinely patriotic grounds. Those who have taken the lead frankly say they are interested less from the mon-dial-humanitarian than from the national American standpoint. As one of them has expressed it: "I want to play on a strong team and I want my team—the United States—to win when it comes to a showdown."

The Board of Trade has arranged with the State Board of Health for a complete medical examination of all the school children. It has built at the Farm Life School a hospital with two six-bed wards, an operating room and equipment. It has employed a competent resident nurse—and she is assisted by the schoolgirls, who thus learn the rudiments of nursing.

It has aided the doctors of the Sandhills to organize a hospital staff, and a marked impetus has been given the medical and surgical work of the district. The hospital is not a charitable institution; it is run on the theory that it is to be self-supporting, and that every patient must pay something.

Spirit of Real Co-operation

One of the most active organizers and promoters of this Sandhill work has recently summed it up as follows:

"Our organization, such as it is, has many defects and we have had many failures and many disappointments. We have not accomplished half of what we set out to accomplish. But we have done two things. We have inspired in the people of this section a spirit of real co-operation that is rare everywhere in our country, and perhaps especially rare in the south. We have succeeded in making them see the advantage of pulling together and occasionally sacrificing themselves and their interests for the welfare of the community.

"That only a few men have done most of the leading is only natural. Only a few will lead under any circumstances. It is the number that will follow that counts. We have also imposed on the community certain institutions that eventually will be of great benefit to it and which the people will eventually support in full. In my estimation we have gone quite far in making a democratic community discipline itself. We endeavor to make our people more prosperous, with fuller, happier lives; but above all we endeavor to make them less selfish and readier to sacrifice themselves for an ideal."

This is the spirit, both practical and

lofty, deferential both to common sense and to idealism; considerate of both one's own needs and of those of one's fellows, in which we should approach the problems of our farming population—and all other problems also.

SEED CORN TESTING

The Children of the United States to Give This Patriotic Service—Teachers Urged to co-operate.

On the children of the United States rests a patriotic duty. There is no half way measure regarding the patriotism of our boys and girls. They are eager to give War Service.

The seed corn situation in the United States is very serious in many localities. A killing frost as early as September 9th ruined thousands of acres of seed corn, and subsequent frosts in October have added to this calamity. Every thing, therefore, indicates a scarcity of seed corn for next spring. The cold, wet, rainy weather in October discouraged the selection of seed, and there is probably not half the seed corn picked at this time that there was last year and there is nowhere near the same amount of good quality of seed in the field.

The government is very wisely depending upon the people to do this work themselves, and in the rush of war work there is great danger that our seeds will not be tested unless the children do it. It is only by testing the corn, ear by ear, that we can raise a huge crop in 1918. This patriotic campaign has been undertaken by the Crop Improvement Committee, 65 Board of Trade, Chicago, and it will send any teacher full directions for testing seedcorn, a sample rag doll seed corn tester, and a paper blotter for testing small seeds, for six cents in postage stamps. The testers may be made at home by following the directions, or the testers may be had already printed.

Every boy and every girl is asked to enlist for this war service and to test the seed corn for father or some neighbor in the school district. This work is to be undertaken at a time when gardening and canning work is out of the question.

For ten years the Missouri College of Agriculture has been experimenting on the value of a ton of manure. An average of sixty tests gave from the application of eight tons of manure to the acre an increased yield of 10½ bushels of corn, 5½ bushels of wheat, 4 bushels of oats and about 7000 pounds of hay. This gave a value at present prices of about \$4 a ton.

GOOD BYE TO THE WEST

Goodbye to the west, and the bunch-grass hills;
Goodbye to the cowboys, and all of the thrills,
Goodbye to the coyotes, who howl their woes;
Goodbye to the rains, goodbye to the snows.

Farewell you young cowboys, that I've known so long,
How I'll miss your faces, how I'll miss your song,
The times we have had, I shall never forget,
But sometimes I wish that we never had met.

No more will I sit in my log cabin door
And see the wild horses, that I've seen before,
Come down from the hills, all eager for salt;
See them circle the licks, see them come to a halt.

My saddle I gave to an old friend of mine,
Who was too crippled up, for to fall into line;
My chaps I sold to a young Indian brave,
My hat and my boots, to another friend gave.

So now I will go, for my country I'll fight,
For I know our old Uncle is sure in the right,
I long for the battle, I yearn for the strife,
And the flag I'll protect, if it costs me my life.

So, goodbye to the west and the bunch-grass hills,
Goodbye to the cowboys, and all of their thrills,
Goodbye to the coyotes, who howl out their woes,
Goodbye to the rains, goodbye to the snows.

—By Corporal Tracey Layne in Spokesman-Review.

THE NEW AGRICULTURE

By Carl Vrooman, Assistant Secretary of Agriculture

Barring hunting and fishing, farming is perhaps the oldest of vocations. Certainly it is the most vital of vocations. Yet from the dawn of history to within the memory of men now living, farming as an art made comparatively little progress. There are Americans alive today who have

cut wheat with the sickle, a tool that was of immemorial antiquity when Ruth gleaned in the fields of Boaz. There are men in Illinois still, I dare say, who won't admit that you can grow alfalfa successfully in the corn-belt. The Old Agriculture has been with us a very long while, and it will take us a long time yet to shake ourselves wholly free from its habits and traditions, but in our day we have at least begun to break its bonds. The New Agriculture has been a long time coming but it's on the march now.

By the New Agriculture I don't mean merely agronomy—the science of growing big crops. I mean not only that, but the whole science of agriculture—farm management and farm economics and the other things that enter into that composite science which is now in a fair way to make the art of farming something altogether different from anything that the husbandman of this world knew or dreamed of in the generations that went before the one now passing.

The new Smith-Lever act provides for a sort of deputy Secretary of Agriculture for every county in this country and will eventually make available nearly \$10,000,000 per year for the diffusion of agricultural knowledge thruout America, and we have the fundamental machinery necessary for making straight the path of the New Agriculture.

It is difficult to overestimate the sweeping significance of the provisions of the Smith-Lever law. It serves to bring the Department of Agriculture in actual personal touch with the farmers of the country. The county agent is designed to give the farmer practical advice on his individual problems, an expert to be called upon, like the family doctor, to diagnose difficulties and prescribe remedies. If the county agent comes across any problem which he himself is not competent to solve, he will call in for consultation experts from the state agricultural college or experiment station and if the problem still proves puzzling, he may make further appeal to the experts of the Federal Department. Thus the highest agricultural skill and knowledge of the country is to be made available and placed at the disposition of the poorest farmer in the most remote region of the Union. It is the most far-reaching university extension campaign the world has ever seen. It is agricultural learning democratized, made practical and given to the farmers of the country without money and without price.

All this machinery for the furthering of the New Agriculture has been devised and fabricated, but it remains to devise ways and means for

properly oiling the machine. That means rural credits—for without money you can't get the wheels going. I believe that the farmers of this country need better credit as badly as they need agricultural and economic science. We are talking more and better livestock to the farmers, but it takes money to buy boars and brood-sows and pure bred bulls. A ninety-day credit is of no use at all to the farmer who wants to change his system from grain to livestock.

We have indeed made a good beginning looking to rural credits in the provisions of the Federal Reserve Bank act, which give the farmer a considerable extension of credit, but this is only a beginning, and it is imperative that we go forward along this line. One of the greatest difficulties the farmer has had to deal with is the fact that our banking system has been built up with a view to satisfying the financial needs of urban communities, with little or no special provision for the needs of the agricultural interests of the country. I think I am altogether safe in saying that we shall remedy this condition in the very near future.

Given the official machinery for pushing the New Agriculture and credit to make its progress easy, it will remain for the farmers themselves to do the rest. It is for them, and especially for the young farmers in the agricultural colleges, to cooperate with the state authorities and the Department of Agriculture in pushing this great work if they are to see it achieve the highest success. For without the earnest cooperation of those concerned there can be no real success in any line of human endeavor which touches the welfare of the people at large. The New Agriculture can advance only where it is wanted—it cannot anticipate its welcome. It's up to the farmers themselves to see that the welcome is given in the same spirit in which the offer of cooperation for the advancement of agriculture is tendered.

MARKETING GRAIN AT COUNTRY POINTS

Management of a Country Elevator

There are many more factors entering into the proper management of a country elevator than appear upon a cursory examination of the subject. The business is attended by many hazards which should be carefully weighed in advance by those contemplating engaging in it.

Pointing out a common fallacy of buying, the Government investigators

declare that the producer of high-quality grain often receives less than it is worth in order that the buyer may pay an equal price to a grower of grain of inferior quality. If the farmer would clean his grain he could not only demand top prices, but would thereby obtain screenings worth \$10 to \$25 a ton for feed. The specialists believe that farmers who deliver grain of inferior quality should not expect to receive a price equal to that paid for high-quality grain.

Speaking of the storage of grain on the farm, it is necessary to consider the interest on the investment, interest on the grain in store, natural shrinkage and loss by rodents, convenience of marketing, condition of roads at time of delivery, price at harvest time, and the probable price at some future date. In the past the natural shrinkage in corn has been so great as to show little profit from storage, while if a long-time average is taken into consideration, oats and wheat have been stored at a profit.

SECRETARY HOUSTON'S REPORT

Response of the Farmers

Reviewing the progress of the campaigns for increased production to meet war demands and conditions, David F. Houston, Secretary of Agriculture, in his annual report made public November 8, reports that the farmers of the Nation, patriotically responding to the appeals of agricultural and other agencies, have produced more than five and one-half billion bushels of cereal food crops—exceeding by 1,000,000,000 bushels the five-year average for cereals—record crops of Irish potatoes and sweet potatoes, large crops of beans and sugar beets, and an unusually large crop of perishables. Authentic figures for meat, poultry, dairy products, and vegetable oils are not available for 1917, but rough estimates indicate that the quantity for the year is slightly greater than for either 1916 or 1915 and exceeds the five-year average by two or three billion pounds.

It must be borne in mind, however, the Secretary says, that the 1917 cereal crops are 199 million bushels below the yield of 1915; that the carry-over of cereals from last year was much below the normal; that the percentage of soft corn of the 1917 crop—which can not be used for food—is unusually high; and that, with the destruction of live stock in Europe and the great demands from there for meats and fats, with consequent greatly increased exports from the country, the supply of meats and

READY My 1918 Book

Send for It—Buy Direct—Save Money

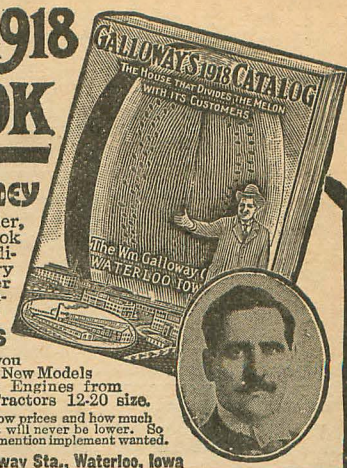
Stop where you are if you are about to buy a Spreader, Engine, Separator, Tractor. Send for my new 1918 Book and get my proposition. Let me explain how buying direct—getting your implement straight from the factory to your farm—saves you from 25 to 40%. I am the actual maker and sell you at lowest manufacturers' price based on gigantic volume. I cut out all waste between you and my factory.

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and the many other implements I sell in this way, and let you keep the saving at home and in your own pocket. My 1918 New Models are ready. Spreaders with 11 exclusive improvements; Engines from 1½ to 16 H. P.; Separators in four splendid sizes; Tractors 12-20 size.

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We Teach You What to Say and How to Say It.

Four weeks' term opens Monday, December 31, 1917. Tuition \$75 for life time scholarship. This will doubtless be the last term at that price. Shall we make reservations for you?

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fats will not be adequate to meet the domestic needs and those of the nations with which we are cooperating.

"That the farmers of the Nation have generously responded to the appeals for increased production, and that much has already been done to insure a large supply of foods and feedstuffs, justifies no let-down in their activities or in those of all agricultural agencies," the Secretary says. "On the contrary, even greater efforts must be put forth in the coming months if we are to meet satisfactorily the domestic demands and the needs of the nations with which we are associated in this struggle. There must be no breakdown on the farms, no failure of foods, feedstuffs, or

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J. E. McCOMB, WINNEBAGO, MINN.

clothing. I can not emphasize too strongly the urgent necessity of doing everything possible to bring about a still further increase in the production of all essential commodities, particularly of the staple crops and livestock.

The yields in 1917 of the major food crops are as follows, the Secretary reports, according to unrevised estimates: 3,191,000,000 bushels of corn, 659,797,000 of wheat, 1,580,000,000 of oats, 201,659,000 of barley, 56,000,000 of rye, 16,813,000 of buckwheat, 33,256,000 of rice, 73,380,000 of kafir, 439,686,000 of Irish potatoes, 84,727,000 of sweet potatoes, 15,957,000 of commercial beans, 42,606,000 of peaches, 11,419,000 of pears, 177,733,000 of apples, and 7,621,000 tons of sugar beets.

Wheat and Rye Outlook for 1918

"The actual increase in the acreage of crops sown this fall can not be accurately determined at this time," the Secretary says. "There is every indication, however, that the farmers in the sections where fall grains can be profitably raised have patriotically responded to the Nation's call for more breadstuffs. Reports made to the Bureau of Crop Estimates in August, before the campaign for increased acreages was well under way, indicated an intention on the part of farmers to increase their sowing of winter wheat by about 10 per cent, and of rye by about 3 per cent. If these intentions are realized, it will result in the planting of 44,100,000 acres of wheat and about 4,340,000 acres of rye. Reports received since August are to the effect that the fall-sown acreage of these two crops has been increased in nearly every State, altho the drought in the Southwestern States and in portions of Washington has made it impracticable fully to carry out the planting program. The official estimate of the acreage of winter wheat and rye will be issued on December 19 after the planting of winter grains is completed in the South. Similarly, it is too early to determine the percentage of germination of seed actually sown, and therefore any prophecy at this time as to the actual harvest of winter wheat to be expected in 1918 would be merely a guess."

Bureau of Markets

How the Bureau of Markets has organized and expanded its work in order better to aid farmers' to meet unusual marketing conditions is also described by Secretary Houston.

Many of the projects of the bureau were redirected in order to deal more effectively with emergency problems. The market news service for fruits and vegetables, begun during the fiscal

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year 1915, as well as that for live-stock and meats, which was inaugurated in the fiscal year 1917, was developed as rapidly as possible early in the season with available funds. The reports were particularly valuable in connection with the shipment of perishable products, and large numbers took advantage of the timely information furnished by them. During the fiscal year 1917 approximately 3,000,000 bulletins regarding car-lot shipments and jobbing prices of fruits and vegetables were distributed to more than 52,000 individuals, including shippers, jobbers, distributors, and receivers.

An appropriation of \$2,522,000 provided for in the food production act made possible a marked expansion of the machinery of the bureau. The news service for fruits and vegetables and for live stock and meats were still further developed and were extended to include hay, grain, and seeds, and dairy and poultry products. Three general reporting services, one daily and two weekly, are conducted for perishables at 25 stations, as well as a local service for truck crops in certain cities.

The first quarterly report of the supply of wool was issued on July 30, and represents, it is believed, the most complete inventory ever compiled of the wool supply in the United States. The reporting service for cold-storage holdings was rapidly enlarged and now includes 43 commodities.

Branch offices are now maintained at 12 important market centers to collect and distribute current information relative to supplies of live-stock and meats, demands, prices, and other market conditions. Information on wholesale meat-trade conditions is secured daily from several of the largest eastern meat consuming and distributing centers, and a summary is immediately forwarded to the central livestock markets in the West. More than 60 stockyard companies report their current livestock receipts and shipments, and a summary of the figures is issued after the first of each month. Biweekly reports are made on hay and grain for certain sections. A semiweekly statement of bean prices, demand, and movement is made, and

plans have been completed for issuing one each month on farm and garden seeds.

The food production act authorized the Secretary of Agriculture to investigate and certify to shippers the conditions as to soundness of fruits and vegetables and other food products when received at the important central markets. Rules and regulations for carrying out this provision of the act were published October 31, and the inspection service was inaugurated promptly in 24 of the large markets. This impartial and disinterested inspection service will, the Secretary believes, lessen the uncertainty surrounding the marketing of perishables and stimulate economical production.

In addition to its nation-wide food surveys now in progress, the bureau is making an effort to secure accurate information regarding the supply of fertilizer materials on hand, the probable production and consumption, and other facts relating to fertilizers.

FOOD ADMINISTRATION ACTIVITIES

Benefits of Federal Licensing

Elimination of speculation and excessive profits in the wholesale food handling trade is secured by the Federal licensing system put into effect November 1 under the U. S. Food Administration. The regulations are expected to protect not only the consumer but also the producer who sends his goods to market on consignment.

Scant Meat Diet in Germany

According to figures secured from reliable sources by the U. S. Food Administration, the average consumption of meat by the civil population in Germany is one-half pound per week per person, distributed thru a rigid system of food cards. Other staple food products are likewise restricted.

Limits Sugar Sales

To prevent a temporary sugar shortage in northeastern states till the 1917 sugar crop reaches market, the U. S. Food Administration has limited confectioners to 50 per cent of their normal requirements till January 1,

1918. The same limitation applies to manufacturers of sirups, ice cream, gum and cordials.

HIDES

HORSE—COW—BULL—CALF
any kind wanted, we can make you
money—Get our price list—Tags.
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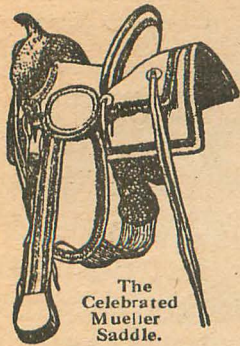
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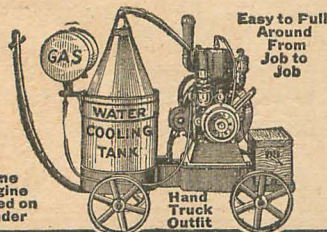
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Same Engine Used on Binder

Easy to Pull Around From Job to Job

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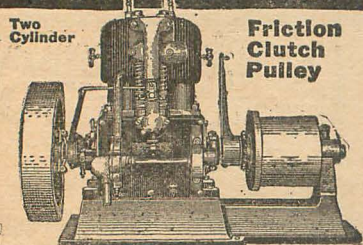
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Two Cylinder

Friction Clutch Pulley

Mention the N. D. Farmer

ELIMINATING STORED GRAIN WASTES

In the present crisis it is imperative that every effort be expended toward the elimination of each avenue of waste in our grain stores. Damage done stored grains by insect pests is considerable on every farm. One of the most satisfactory methods of destroying such insects is by the use of carbon bisulphid as a fumigator.

The amount of carbon bisulphid necessary to obtain good results varies, but at average temperatures (70 degrees Fahrenheit) four pounds of the liquid will be sufficient to treat 100 bushels of grain. The cracks and doors should be made as tight as possible before the fumigation begins. Shallow pans with large evaporating surfaces should be distributed over the top of the grain. As the vapor of carbon bisulphid is heavier than air it will gradually permeate to the bottom of the bin.

It must be remembered that the fumes of carbon bisulphid are poisonous and one must not enter the bin. The fumes are highly inflammable and explosive and for that reason all fire and lights must be kept away while fumigation is in progress. At temperatures below 60 degrees the results are unsatisfactory regardless of the amount of carbon bisulphid used. Thirty-six hours of fumigation will not hurt the grain and is a sufficient length of time to kill all insect pests. The doors and windows of the bin should be open for two hours before entering.

A NEW ALFALFA BULLETIN

We have just received a new bulletin on "Field Management of Alfalfa" written by Prof. A. M. TenEyck, director of the agricultural extension department of the Emerson-Brantingham Implement Company, Rockford, Illinois. This is a very complete treatise on the subject. The bulletin proper contains fifty-eight pages and forty-six illustrations with a supplement of four pages on machines used in alfalfa culture. It is written in clear, concise language which the farmer will understand, and is full of valuable information which all farmers who are growing or may grow alfalfa should read. The bulletin will be valuable also for reference, and

should be in every farmer's library. A copy will be sent free to farmers who request it.

POTATO "DON'TS"

1. Don't injure the selling and storing quality of your potatoes by careless digging.

2. Don't glut the fall market and injure your winter market by placing large quantities of ungraded stock on the market at harvesting time.

3. Don't ship any frost-damaged potatoes. It is disastrous.

4. Don't demoralize the already overburdened transportation facilities by shipping cull potatoes. Unless potatoes are extremely high in price, culls will not bring transportation charges.

5. Don't overlook the advantages of "machine sizers." They are proving of great value in many shipping sections.

6. Don't expect machine sizers to grade for quality—only human hands can grade out the defective tubers.

7. Don't mix No. 1 and No. 2 grade potatoes. There are customers who desire each separately, but do not want them mixed.

8. Don't overlook the potato grades recommended by the United States Department of Agriculture and the United States Food Administration.

SEED CORN SELECTION

Principles of Breeding Rules in Plants As Well As in Animals

Seed corn selection is as important as the selection of sires and dams in the breeding of livestock, and the time and place to make the selection is in the field when the grain ripens.

The average yield of corn in the United States is only 26 bushels to the acre. That this is too low is shown by the fact that yields of 200 bushels to the acre are made by boys who are engaged in the corn club contests which are now so prevalent, especially in the South. It must be granted that their practices can not be put into effect everywhere, or on a large commercial scale. Yet without their intensive cultural methods, a large improvement has been made, according to the boys' corn club leaders, thru seed selection alone, and yields have been increased from year to year where the boys have selected their seed from the most productive stalks as they stood in the fields.

Every spring there is a scarcity of good seed corn, and this is a condition which should not exist, and need not exist. It is more serious than is usually supposed and many persons do

ENCOURAGE AND MAKE USE OF THE SPIRIT OF PLAY

Playground Games, 10 cts. Rules for playing the more common games of the school ground. Game of Times, 15 cents. A help in teaching and learning the tables and simple factoring. Davies Number Cards, 25 cents. All possible combinations. For all grades. In boxes. Westland Phonetic Cards, 25 cents. Busy work for primary grades. An aid to sight reading. Fundamentals in Arithmetic Teaching, 25 cents. Invaluable for rapid work in numbers. Uncle Will's Magazine, The Rotary, 30 cents. Unique. Has personal element. 21st year. North Dakota Speller, 50th M. For 5th-6th, and 7th-8th Grades, 15 cts each. Trial, both 25 cts. The Rotary, Box F, - - - - - Lisbon, North Dakota

not realize the loss to the individual and the country thru poor seed. It may all germinate and produce a good stand, but the yield may not be the best one possible because it does not come from a high-producing strain. The germination test, while of great importance, is by no means a final test as to productivity.

The farmer usually has not the time to apply the special methods required for corn breeding, but he can profit by a corn breeder's work if he gets some of the best-producing strains which have been bred and then still further improves them by selection. A good seed corn is one that is adapted to the locality, is grown on the most productive plants of a productive variety, is well-matured and preserved from ripening to planting time in such a way that the full vigor of the seed will be retained.

Careful experiments have shown that varieties which produced most in one region were among the poorest producers in a neighboring state; that ears from high-yielding plants repeatedly produce more than other ears, apparently as good, from plants where the productivity of the parent stalks was not considered; and that corn preserved carefully produces much more than corn held haphazard in a crib, even tho both lots germinate equally well.

Corn Next Year

Now is the time to plan the campaign for the big spring "drive" next year. The farmer who has found himself compelled to plant corn that was not fit for seed will not do so next spring, for reasons of both patriotism and profit. It is discouraging to have poor seed make a poor crop prospect even before it gets into the ground. It seems hardly worth while to cultivate afterwards, whereas good seed gives a man the incentive to do his best.

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W. E. McCarron

These are 20 Year GUARANTEED ROOFS



DIRECT OR VIA HOGS?

While skim milk is good for stock, the fact remains that its highest efficiency can not be had thru turning it into meat. Skim milk is used most economically in animal production when fed to hogs, yet it takes 20 pounds when fed alone to produce 1 pound of pork. The same quantity will make 3 pounds of cottage cheese. In addition, cottage cheese contains one and one-half times as much pro-

tein and one-third as much energy as pork, so that the skim milk in the cheese form gives quite as much energy and four and one-half times as much protein as it would if converted into ham or bacon.

Even at the highest prices recently paid for hogs, skim milk fed to them is worth not more than 1 cent a pound. Yet 1 cent a pound or approximately 1 cent a pint, is very cheap for any human food, and particularly for a food so high in nutritive value as skim milk.

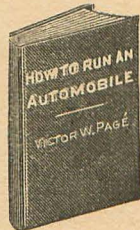
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North Dakota Farmer

Entered as second class matter at the postoffice at
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O. O. CHURCHILL C. B. WALDRON
H. O. WERNER

Remittance may be made by draft, check,
money order, or stamps if it will accommodate.

Vol. 19 December, 1917. No. 6

Kan Kaiserism.

Read the cover page.

Do your **big** bit or lose the fight.
This is no longer the day of bits, but
of big things.

The farmers' share of the retail price
of a loaf of bread is double what it
was last year-

France raised 35 billion pounds of
foodstuffs in 1913, but only 22 billion
in 1917. Her dire need is our op-
portunity.

Those who substitute fruits, (like
the date and raisin) honey and jellies
for sugar will not only conserve that
commodity but will preserve their
health.

The present war has made an out-
cast of Excess Profits, and never
again will he be allowed to hold sway
in this country, thanks to the efficient
management of our government offi-
cials.

It has been proved that the difference
in offspring's butterfat alone between
the use of a scrub sire and one of
good breeding amounts in one year to
\$22.50, the price of a pretty good
cow not so many years ago.

With wood selling from \$14 to \$15 a
cord, while coal may be obtained at
\$4 to \$5 for lignite and \$12 to \$13 for
hard coal, the advice to burn wood
falls on deaf ears. North Dakota's
coal fields, tho once held in light es-
teem are now proving their great
worth and will continue to increase in
value.

After listening to the farmer who
condemns in loud tones the success-
ful manufacturer of farm machinery
inspect the premises of this disgruntled
grumbler and you will without doubt
find farm machinery scattered about
with no protection and fast succumb-
ing to rust and rot. The question
arises, whether such a man is as good
a citizen as some who save more and
rant less.

It is up to the farmer to say wheth-
er this war shall be won or lost.
He may think the seat of war is in
far away Europe, but the real conflict
may be in his hog lot, his corn field,
his garden, his cow pasture. His

most dangerous enemy may be his
next door neighbor who is trying to
inject the socialism of a Lenine and a
Trotzky into his mind.

Our government has appropriated
\$150,000 for poultry work, even more
than for any other livestock industry.
Just as the number of gardens was
increased last year, so let every farm-
er add materially to his stock of
poultry. Let the motto be, "One
Hundred Hens on Every Farm. One
Hundred Eggs to Every Hen."

While there was considerable doubt
regarding the advisability of the 16 to
1 proposition of '96, there is certainly
a united stand on the 13 to 1 pork-
corn agreement. The government
calls for an increase of from 15 to
50% increase in the pork production
of the country. North Dakota will do
her share as surely as she answered
the call in the Liberty Bond cam-
paign.

Hold on to your Liberty Bond.
He who advises its sale is the enemy
of your country, and is probably car-
rying out the schemes of the German
government. If quantities of these
bonds are thrust upon the market,
their value will surely go far below
par, just the condition to make our
enemies rejoice. It does not help
matters and only embarrasses the
administration to chide the govern-
ment because its bonds are being sold
at a discount. It's like tripping a
man up and then kicking him for
falling.

The assertion that North Dakota
needs \$50,000,000 to supply indigent
farmers with seed wheat is just as
false as the one that the average cost
of raising a bushel of wheat in North
Dakota was \$3.54. Some farmers will
need assistance in purchasing seed
wheat, but we do not believe there is a
county in the state that would not
gladly issue seed-wheat bonds. There
is more money in the state than there
was last year, and far more patri-
otism.

The sooner the energies of the na-
tion are directed to the production of
necessities rather than luxuries, the
more eagerly will the farmer devote
his labors to the raising of food prod-
ucts. Congress should release for
work on the farms the coming season
the countless employees now engaged
in the manufacture of things that sim-
ply gratify the taste or appetite. The
farmer is entitled to these helpers,
who in after years will be proud of the
fact that they have had a hand in
bringing to a successful close this
world war. It is in the power of
Congress to release these men. Let
your senators and representatives
know your wishes.

This month occurred the annual in-
stitute of the boys and girls who won
out at the industrial contests thruout
the state. It was a pleasure and an
inspiration to be with them and wit-
ness the eagerness with which they
listened to lectures and the enthusi-
asm they exhibited in the entertain-
ments so generously furnished them
by the Agricultural College, the Com-
mercial Club and other organizations.
While many of the boys and girls
meet with the same discouragements

their parents have experienced, they
certainly have set them a good ex-
ample of perseverance. We congratu-
late these young farmers and farm
managers on their achievements and
wish them even greater success the
coming year. In the next issue we
shall publish the best account of the
institute.

Altho the present price of hogs is
close to \$15 a hundred, economy in
feeding must be practiced, since feeds
are now so high. The roughage on the
farm must be used. It means much to
the dairy. Practically all the wastes
from the garden, kitchen and field
should be utilized.

PROGRAM

The Nineteenth Annual Conven-
tion of the Tri-State Grain and Stock
Growers' Convention will be held at
the Auditorium, Fargo, N. D., Janu-
ary 15, 16, 17 and 18, 1917. Presi-
dent, C. B. Waldron, Secretary, W.
C. Palmer.

Tuesday, January 15th

10 A. M. Prayer, Rev. H. H. Frost;
Address of Welcome, Judge A. T.
Cole, Fargo; Work of the Pure Seed
Laboratory, H. L. Bolley; The Seed
Situation, J. N. Hagen.

1:30 P. M., Diseases of Potatoes,
Dr. E. C. Stokman; Rural Education,
N. C. McDonald; Wheat Grades and
Grading, J. A. McGovern.

Wednesday, January 16th

9:30 A. M. Farmers' Organizations,
A. E. Chamberlain; Federal Farm
Loans, E. G. Quamme.

1:30 P. M., The Seed Corn Situ-
ation in the Northwest, Coates P.
Bull; The Potato Crop, George W.
Dixon; Poultry, E. G. Roberts.

7:30 P. M., Band Concert, Agricul-
tural College Cadet Band.

8:30 P. M., Importance and Meth-
ods of Food Conservation, E. F.
Ladd; Address, E. C. Perisho.

Thursday, January 17th

9 A. M., Alfalfa Growing, B. Byron
Bobb; Meat Production, J. E. East-
gate.

1:30 P. M., Rural Education,
Charles Carlson; The Farmer and the
War, Governor Frazier; Extension
Work and the Farmer, G. W. Rand-
lett.

8:00 P. M., Conservation in the
Home, Katherine Jensen; Speeding up
Production (President's Address), C.
B. Waldron.

Friday, January 18th

9:30 A. M., What has been ac-
complished by farmers' cooperating
in Canada, Roderick McKenzie.

1:30 P. M., What has been accom-
plished in a business way in the So-
ciety of Equity during the last year
and progress on the packing plant.

Herbert Hoover, National Food Ad-
ministrator, has signified his intention
of accepting a place on the program if
nothing unforeseen comes up to pro-
vent him from being here.

Livestock Department

FARM AND STOCK NOTES

N. J. Shepherd

Warmth and dryness will save feed. An overfat hog is never a profitable parent.

Improved breeds of hogs improve the hog profits.

Butter color will not cover up defects in grain or flavor.

Usually the pig eating sow is the result of bad feeding.

Do not change the rations of the dairy cow too suddenly.

All pruning must take into account the habit of growth of the tree.

The dairy cow on the farm makes a market for the products of the farm.

Even low grade stock may be made to look well if kept in good condition.

A large udder does not always indicate the amount of milk a cow will give.

The better the hog the less the food cost in the production of a pound of pork.

A great point in a dairy cow is to have the milking habit well established.

When the cows have been long in milk the churning becomes more difficult.

Butter when churned too long becomes solid and greasy instead of open and grainy.

Better to have the team matched in power and endurance than in the matter of color.

The boar should not only be pure bred, but a good individual backed by good ancestors.

One of the first ways of increasing the profit in dairying is to reduce the cost of producing it.

The amount of butter that can be made is limited by the amount of butter fats that the milk contains.

In commencing to feed sheep grain, feed a small quantity at first and gradually increase or they will lose wool.

The more stock is exposed to cold and storms the greater will be the amount of feed required to maintain animal heat.

In using the separator, when the milk has been separated flush the bowl out by pouring into it about a quart of water.

Both the flavor of the butter and the thoroughness of the churning depend upon the manner in which the cream is ripened.

The producing of fat varies greatly in milk but it varies more with the poor milk of poorly fed scrubs than with any other class.

If the cream is too thick it should be thinned out before the churn starts, but in all cases the thinning should be done with water.

With young colts moderate exercise should be begun quite early, but full service of no kind should be required until the animal is reasonably well matured.

It is the always hungry cow that is the profitable cow. The cow with a dainty appetite—that does not eat much or drink much—is the one that does not give much milk.

It is not the fat, plump sows of the herd that make the best brood sows but rather the long-bodied more vigorous sows which show quality and have good grazing and feeding powers.

The colt's system requires a considerable amount of bone and muscle building material and this can only be had by feeding nitrogenous feeds such as oats, bran, a little oil meal and where obtainable clover hay.

One of the main advantages of draft blood is an inherited disposition to work at a moderate pace and to submit to restraint from the collar and the bit without fractious fuming and fighting at the driver.

The amount of milk a cow gives is not nearly as important as the quality and the length of time she keeps up the average flow. Do not keep a cow simply because she gives a large mess of milk.

To make feeding profitable we must arrange to get growth and flesh at the same time. Food given before an animal matures is much more efficient for the production of flesh than that given after mature growth is completed.



Purebred Registered HOLSTEIN CATTLE

The undeniable facts that the Holstein-Friesian Association of America is the largest and most prosperous dairy cattle association in America, that its membership is over 7,000 more than the combined memberships of the other dairy cattle associations, and that it increased its membership by 1,280 during the fiscal year ending April 30, 1916, are primarily a fitting testimonial to the superior merits of the purebred Holstein-Friesian cow, that yields more milk for a day, for a year, for a lifetime and for profit than any other cow. There is big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklets
Holstein-Friesian Association of America
F. L. Houghton, Sec'y Box 267, Brattleboro, Vt.

ENVILLA STOCK FARM

Cogswell, N. D.

Will quote you special prices at any time on Angus Cattle, Feeding and Breeding Sheep, Shetland Ponies, Duroc Jersey Hogs, Wolf Hounds, C. Hies, Rat, Bird Dogs and other breeds, Ang ra Cats. All varieties of chickens, turkeys, geese, ducks, guineas, pheasants, rabbits, ferrets. Pets Live Foxes, Skunks, Mink and Badgers.

Bixby's Red Polls

My herd bull, J. D. Merryweather, No. 24396, is the son of J. D. Millie, A. R. Grand Champion cow at Minnesota and Montana, in the 1915 show-ring and won the milk and butter contest with Guernseys, Jerseys and Brown Swiss competing with records of 600 pounds butterfat. J. D. Millie weighed 1280 pounds at thirty months old, and is full sister to the World's Champion two-year-old heifer. J. S. BIXBY, : : LISBON, N. D.

REGISTERED SHROPSHIRE AND HAMPSHIRE RAMS; also a limited number of ewes for sale; also Polled Durham Bulls, and Canadian Wild Geese. Our stock won many prizes at the North Dakota State Fairs the last three years. Price, reasonable. H. A. Strutz, Thompson, North Dakota.

A. R. BRED BULLS PRICED TO SELL
We are completely sold out of RED POLL bulls for the present but are offering a few choice GUERNSEY bulls, outstanding individuals of serviceable age, at from \$100 up. Write for folder describing the remarkable show ring winnings and production records back of our herd. Jean Du Luth Farm, Duluth, Minn.

Holstein Calves

10 heifers, and 2 bulls, 15-16ths pure, 5 weeks old, nicely marked and from heavy milkers \$20.00 each, crated for shipment anywhere. Edgewood Farms, Whitewater, Wis.

HOLSTEIN AND GUERNSEY HEIFER AND BULL CALVES. Choice selected promising dairy calves, practically pure Holstein and pure Guernsey, but not registered, nice color. \$20.00 each, all express paid to any point in North Dakota and adjoining states. Order two, you will be so well pleased you will want more.—Meadow Glen Yards, Whitewater, Wisconsin.

PERCHERONS

If you want a real good young stallion or mare you should come to my barn. You can buy at a lower price at the barn than anywhere else. All home raised and used to Dakota conditions. A square deal guaranteed. Wm. Steinbach, : : New Rockford, N. D.

Now is the TIME and this is the PLACE to buy

Shetland Ponies FOR THE CHILDREN

Write your wants to
DR. J. A. H. WINSLOE, COOPERSTOWN, N. D.



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Worms and Bots

You can remove every one of them. We guarantee to kill and bring from the body, dead, in a very short time, all pin worms and bots, with the safe and sure remedy.

NEWVERMIFUGE

Absolutely harmless. Can be given to mares in foal before the eighth month. Horse owners write us that Newvermifuge has removed from 500 to 800 bots and worms from a single horse. An animal that is wormy can't help but be ugly and thin. If your horses are troubled with worms send us your order today. Price \$2.00 for 12 Capsules. **BALLING GUN FREE** with 4 dozen \$8.00, with 2 dozen \$5.00. Postage paid.

Farmer's Horse Remedy Company,
Dept. B2, 592 7th Street, Milwaukee, Wis.

The selling value of the three-year-old or the working value if kept on the farm will depend very much on the way it is wintered as a weanling. For a colt once stunted by bad management during the first winter never recovers.

A little study of the nature of the soil and the requirements of certain crops in plant foods and more discrimination in the application of this knowledge will often have a beneficial effect in determining the profitability of some crops.

Flesh is not fat and the sow that carries considerable flesh the result of rational feeding will have larger and more thrifty pigs at weaning time

than the sow that farrows extremely thin and is not in proper condition to nourish her pigs.

THE LIVESTOCK SITUATION

The report of the Secretary of Agriculture outlines the efforts of the Department to increase the meat supply and sums up the livestock situation as follows:

The number of milch cows and other cattle has shown an increase during the last four or five years, the estimate for the former for the present year being 23,906,000, as against 22,768,000 a year ago and 20,497,000 in 1913, before the European war began, while that for the cattle is 43,291,000, as against 40,849,000 a year ago and 36,030,000 in 1913. Unfortunately, the number of sheep continues to decline; the estimate for 1917 is only 46,059,000, as against 48,483,000 a year ago and 51,482,000 in 1913. It is estimated that the number of hogs, which during recent years has shown an upward tendency, decreased over 4,000,000 or from 67,453,000 to 62,747,000. However, it is greater than it was at the beginning of the European war. The number of hogs varies from year to year more widely than that of the larger meat animals. The mere statement that the population has steadily increased in this country—the gain in the 10 years from 1908 to 1917 being 13,000,000—with an absolute decrease in the livestock for the same period, would sufficiently emphasize the seriousness of the situation if conditions were normal and the demands for meats and fats were not so urgent. There is a close relationship, the report says, between the production of livestock and the supply of feedstuffs, and the large production of these necessities during the present season should conduce to more satisfactory conditions for the producers of livestock.

Hogs and Poultry

Nation-wide campaigns to increase the meat supply are in progress, the report shows. As hogs and poultry yield the quickest returns, urgent efforts are being made to increase their production. Funds have been set aside from the appropriation made by the food production act to employ a force of 32 additional specialists to give their time to the task of increasing the number of hogs, 39 to encourage poultry raising, and 6 to assist producers of cattle. By the end of October field agents of the department had assisted in the transfer of 100,000 cattle from localities where there is a shortage of feed to areas

where feedstuffs are relatively abundant. This work has resulted in the saving to the Nation of large numbers of animals.

PORK PROSPECTS

A birdseye view of the pork situation may be had from figures announced by the U. S. Food Administration. At the beginning of this year, swine in the United States numbered about 67,450,000. In Europe the decrease in hogs since the war began has exceeded 32,000,000. So the European shrinkage equals about half the total number of hogs in the United States.

In the face of this situation, the American people consumed more than three pounds more pork per capita during the last fiscal year than in the average of the three years before the war. Farmers who are doubtful about pork prospects should remember that the nation's feed supply is above normal and the meat supply is below the demands now made on it. Lower hog-feed prices are already indicated in the reduced price of new-crop corn.

In a recent statement, Herbert Hoover, U. S. Food Administrator, says, "If farmers are to find markets for feed, it must be to a great extent thru an increase in animals. The monetary interpretation of this situation must be that we will have a low range of prices for feeding stuffs, and in view of the European situation and our own shortage in hogs we will have a high average price for pork products. Therefore, it must be to the vital advantage of every farmer to raise hogs."

ANNUAL MEETING OF PERCHERON SOCIETY OF AMERICA

The annual meeting of the Percheron Society of America, held at 8:00 p. m., Dec. 3rd, at the Congress Hotel, was well attended. President White in his opening address said that it is time for optimism, not pessimism, in the horse business; that the breeding of horses has been curtailed materially in the last few years, while the demands on our horse stocks have been greater than ever. Demands for food and for meat animals have reached unprecedented heights. These grain foods, and forage and grains, with which to feed meat animals, must necessarily be produced from the soil; and in tilling the soil efficiently no power unit has yet been developed which would equal the draft horse. He said that he has himself had experience with tractors; that he has owned three, of various kinds, and that none has proved as satis-

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Beautify your lawn with cotton blooms, will send package of cotton seed with full instruction how to grow it for only 10 cents (coin) W. Wadd Buntin, Seed & Plant Grower, Box 129, Dept. N., Starkville, Miss.

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WANTED—To hear from owner of farm or unimproved land for sale. O. K. Hawley, Baldwin, Wisconsin.

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MISSOURI AUCTION SCHOOL

FREE CATALOG KANSAS CITY, MO.

WANTED. Live Foxes, Skunks, Mink and Badgers, any time. Envilla Stock Farm, Cogswell, N. D.

Wanted to hear from owner of good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

30 DIFFERENT MAGAZINES. All late issues. Yours for only 25 cts. prepaid. Great help in teaching. Satisfaction guaranteed. Eastern Bureau, New Egypt, N. J.

If you have livestock to sell, you can reach a buyer thru the ad columns of the N. D. F.

factory as his Percheron teams. He telephoned to a neighbor this past season, who had bought a tractor, in an attempt to engage this neighbor to do some discing in the orchard. The neighbor replied that he could not come, had work of his own which must be done at once, and that he was even then unable to use his tractor because it was awaiting repairs, and had been waiting for said repair parts for thirty days. Mr. White said his own experiences were similar, and that no breeder need fear that tractors will materially reduce the demand for good draft horses. He urged all breeders to hold fast to their good stock, and exert themselves to produce more good Percherons, which will be urgently needed in the future as seed stock from which to build up our ordinary farm horses. He closed by referring to the suggested breeders' shows and expressed the hope that the Directors would find it possible to develop these within the coming year. Credit for suggesting the plan goes to W. H. Butler of Sandusky, Ohio.

Secretary Wayne Dinsmore, in his annual report, directed attention to the great growth of the Society in the past seven years. Seven years ago the Society had about 2,850 members and reserve funds around \$34,000.00. In seven years the membership has increased to approximately 9000 breeders, and the reserve funds, in securities, are now in excess of \$106,000.00. More animals have been recorded in the past seven years than in the entire 34 years preceding, eloquent evidence of the steadily increasing popularity of Percherons.

Before the annual meeting adjourned Mr. Craven, representing the American Red Star Association, which is to horses what the Red Cross is to men, made a few remarks. He urged the conservation of all available horses, and the breeding of all mares of good type and character. He declared that horses are indispensable in war; that the reserve supplies in our allied nations are practically exhausted, and that the supply of suitable horses in America is much lower than horsemen generally realize. His appeal for the work of the Red Star was heartily applauded, and the members went on record in favor of the work which the organization is doing.

In the election of Directors, Mr. E. B. White of Virginia, Mr. W. H. Butler of Ohio, and Mr. H. J. McLaughlin of Nebraska were elected for the ensuing three years.

In the election of officers by the Board of Directors immediately following the stockholders' meeting, Mr. E. B. White was re-elected President;

W. S. Dunham, now serving as a Captain in the United States army, was elected Vice President. The election of a Treasurer was postponed for 24 hours. Mr. Wayne Dinsmore continues as Secretary. Mr. W. S. Corsa was elected to represent the Percheron Society on the National Society of Record Associations. The meeting thereupon adjourned.

METHOD OF ERADICATING TUBERCULOSIS

Address by Fred F. Field, at Meeting of Holstein-Friesian Association of America.

1. You must be honest with yourself. That is, take it for granted that there are some animals in your herd that have tuberculosis; that you desire to know which ones they are; that you will not sell them except as tubercular; that you want to protect your animals from the spread of the disease; that you want to raise a healthy young herd; and, finally, that you want to do everything you can to accomplish these ends. As the old saying goes, "he who fools himself is a fool."

2. The infectious disease known as tuberculosis is a subject with which both the Federal and State governments have struggled for the past period of years in their efforts to eradicate it. Very little substantial headway has been made.

3. The plan which we recommend, we have named the "Fred F. Field Method of Eradicating Tuberculosis," because it has been successfully carried out at Dutchland Farms by the Fred F. Field Holstein Company during the past three and one-half years, and is still working out successfully. Its practical working has been demonstrated. It is based on sound scientific and common sense theories.

4. First is cleanliness. Keep your stables swept from cobwebs and have them properly whitewashed as often as necessary to keep clean.

5. Get all the sunlight into your stables that is possible. It is absolutely impossible to get too much.

6. Have plenty of fresh air in your barn. You may decide the way to get the fresh air. Modern ventilating systems readily accomplish this result, but if you don't desire and cannot afford to use them, very simple means will accomplish perfect ventilation or a continuous supply of fresh air. As long as there is plenty of it and it is fresh, that is all that is necessary. Fresh air is very essential, as it is very important that, as far as is practicable, every breath the animal takes

should be new air going into her system and not foul air of any sort.

7. In other words, treat the animals as human beings are treated for tuberculosis—that is known as the "fresh air" treatment.

8. Treat the mangers, stanchions, feeding boxes and floors with disinfectant solution. There are several kinds used that are inexpensive, but the stable fittings and floors must be washed and kept clean and well saturated with germ killer as often as necessary to keep them clean, at least once a week. The modern stable fittings are more easily cleansed, but they are not necessary or essential in the work. Wood floors and fittings can be made clean and disinfected. Manure should be promptly removed from stables to eliminate any possible danger from this source.

9. Now we have our barn ready to house the cattle, let's start in to treat the cattle and their offspring.

10. Assume, if you please, that every breeding cow that you own is tubercular. Now that is solely for your own protection. The animal may be perfectly healthy, but you are taking no chances. Later on we make recommendations about the treatment of these breeding animals.

11. As soon as the cow drops her calf, the calf should be taken away immediately, never allowing the mother to even smell of it, to say nothing about suckling it, as the calf never should be allowed to have any of its mother's raw milk. If you haven't a calf barn, this calf should be taken away so that it will not come in contact with any of the other animals, old or young, that are reactors or which you have assumed to be reactors.

12. Purchase a "pasteurizer" which has the "holding" process, which is equipped with a good thermometer; that is to say, it heats the milk to 145 degrees and holds it there thirty minutes.

13. Feed your calf on this pasteurized milk from the start. Feed no other. This milk should invariably be fed at blood heat or the same temperature as milk freshly drawn from the cow. The percentage of loss of calves at Dutchland Farms for the past three and one-half years has been less under this system of feeding than when we were feeding raw milk or allowing them to suckle their dams.

14. Never allow these calves, from the time they are born, to mingle with any reacting animals, or any cattle, old or young, which you have assumed to be reactors. As they get older, never allow them to drink water from the same trough or the same bucket that has been used for that purpose by assumed reactors.

Continued in January Number



Poultry Department



MONEY-MAKING HENS

Michael K. Boyer, Hammonton,
New Jersey

Evidence Which Goes to Show that Well-Kept Hens Built Homes, Paid Mortgages, and Es- tablished Good Incomes.

That poultry can be made a source of profit, there is not the least doubt. That it can be made a staple industry, has been proved. I admit there are failures, and many of them, but in this the poultry business is not unlike any other vocation. There are failures in all enterprises.

Profits are not so much measured by the size of the plant as by the care given. Small poultry farms are, as a rule, more profitable than large ones. A farm just large enough to keep one man busy will yield a better income than one upon which a number of men must be employed.

No one is better able to make poultry culture a paying issue than the American farmer, with the natural facilities he has at hand. Yet, on the average farm, the poultry department is a very small affair, and often left entirely to the care of the women folks, who are already overburdened with household duties. Many a mortgage could be lifted from the farms by well-kept hens, and it is indeed strange that this advantage is not more generally taken.

J. L. Todd, of Ohio, tells the story that misfortune struck him, about fifteen years ago, and left him with nothing but his hands and a few thorobred fowls with which to support a family. Yet he lived, and lived decently, gradually increasing his poultry plant until he was able to save (in about eight or nine years) a comfortable home worth at least \$3000.

Impossible things cannot be done with poultry. They cannot be neglected. A man can make a good living with hens, if the stock is properly cared for. There will be no fortune in their keeping, but there will be a good steady occupation, with living wages.

But a man cannot expect wages from the start, especially if he knows nothing about the business. Poultry farms cannot be established in a day; they require both capital and experience and must grow from small beginnings.

Theodore Sternberg, one of the old-time poultrymen—a man who had

tested the business in every phase, once declared: "I honor the hen; and she, if given half a chance, will pay every mortgage in this country and buy exchanges enough to knock the spots off the city mortgages."

Then we have the testimony of Colonel E. O. Roessle, so well known in the poultry world, who said there is a handsome living in poultry farming for anyone who has a love for the pursuit, the ability to raise and care for the stock, and a small capital to start with. These three things must go hand in hand; separately, they cannot bring success.

One of the most interesting stories is told in the Curtiss Poultry Book (published by Farm Journal, Philadelphia, Pa.) It tells how two young men started at the foot of the ladder and gradually worked their way to the top.

In 1885 Roy and Jay Curtiss started in poultry farming. They worked early and late, and the farm gradually grew. They met with the usual drawbacks and stumbling-blocks that will come to beginners, but they persevered. The result is that by dint of hard work, economy and a determination to win they have today what is recognized to be the largest poultry plant in Eastern New York, with a capacity of 100,000 head annually.

Even to this day, with the large farm they have, these two men do practically their own work—employing only enough help to take care of what extra work they are unable to handle. It is a bright example of grit, push and enterprise, and they are not afraid to take off their coats, roll up their sleeves and get at it. That is the class of men who succeed.

W. W. Kulp, of Pennsylvania, another old-timer, not only built up a profitable business but he repaired a shattered constitution. It is a story that carries with it a lot of good.

While yet at school his health gave out, and some time afterward, while on a visit to Philadelphia, he met with an accident that almost exhausted what little strength he had left, and from this mishap he never fully recovered.

In 1884 his father proposed that he raise poultry, he furnishing the place and feed and the son to have a third of the sales. The son agreed to this, altho so weak that to feed and care for the stock was almost too much for him; but he persevered. The plant grew, health came back to Mr. Kulp,

and today he owns one of the most prosperous plants in the State of Pennsylvania.

A station agent on the West Shore Railroad, New York, in a letter to the writer, not only tells how the hens enabled him to hold his job, but also to continue to enjoy his pleasant home. He writes:

"During the first ten years of my service as agent at this station I kept a few hens of the Leghorn type to supply my own table with fresh eggs. About four years ago I injured my spine in handling heavy baggage so that heavy work had to be given up. This being a one-man station, and no helper allowed, I was forced to decide either to go elsewhere and take a position of light office work and abandon a pleasant home (you know what that means) or hire a good strong boy as helper, and pay his wages from my own salary. Here is where the hens stepped in and helped decide. With the few hens I had been accustomed to keep and foot bills, I knew the credit balance was in their favor. Then why not make them help pay the strong boy to do my heavy work, by increasing their number, and enable me to retain my position and enjoy my home?"

"It is sufficient to say the hens had to shoulder the gun of expansion, and are nobly helping out to keep my salary intact after paying the helper boy."

The above sketches of real life are given to show that the hens are money-makers that are not to be despised. I might give many more, but it is not necessary. With good care a hen will yield a profit of one dollar or more per head, but with indifferent care she is about as losing a proposition as the average mining stock.

It has been shown that poultry, well kept on the farm, is the best paying crop; it has been proved that the hen lifted many mortgages; it has been pointed out that health was restored to many weak and sickly men and women who undertook the care of chickens; then too, it has been clearly stated that the work combines both pleasure and profit.

It was that grand old man of poultry culture, the venerable Isaac K. Felch, who 30 or more years ago made these wise remarks:

"Farmers, this poultry keeping has more than a money value for you. Interest your boys in it, for thereby they learn many of the principles that underlie the successful breeding of stock—fitting them, when older, the better to manage cattle and horses. The rapid production of chickens enables them to try as many experiments, in a few years, as would take a

lifetime with stock. In the breeding of fowls they learn that like produces like more surely, and only, as a rule, where the stock is bred in line, and that to produce chickens uniform in type and color they must have, in both sire and dam, a preponderance of the blood of the desired type; they must mate kindred blood judiciously, avoiding too close relationship—for by

Rose Comb Reds and S. C. White Leghorns. Winnings and Price List, Free.

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62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful, Fowls, eggs, incubators, at low prices. America's Pioneer Poultry Farm; 24 years exp. Large fine Annual Poultry Book and Catalog Free.

F. A. NEUBERT, Box 689, Mankato, Minn.

Giant Bronze Turkeys: Toms \$10 to \$15; Hens, \$5. Goldbank Strain. Fawn Runner Ducks, \$1 each. Selma Shanander, Dayton, Ia.

Barred Rock Cockerels direct from winners at Crookston and St. Cloud, \$1.50 to \$2.50 before Christmas. **Laurel Hill Farm, Westby, Montana.**

EGGS for Hatching from our prize winning Rose Comb Brown Leghorns, Rose Comb Rhode Island Reds and Single Comb Black Minorcas. \$2.00 per 15. **Peter H. Levey, Fountain, Minn.**

White and Columbia Wyandottes, Light Brahmas, and S. C. White Leghorns Over 30 years a breeder. Stock and eggs for sale. **MICHAEL K. BOYER, Box 27, Hamonton New Jersey**

Hatching Eggs from a good strain of Pure Bred S. C. Rhode Island Reds, 15 for \$1.50; also a few Cock Birds and Cockerels for sale. **E. N. Hedahl, Mercer, N. D.**

FOR SALE. Well Bred Up R. C. Reds. First prize winners: cockerels, \$1.25. **Mrs. John Henderson, Box 228, Beulah, N. D.**

PUREBRED BARRED PLYMOUTH ROCK eggs. O e setting of 13, \$7.50. 100 eggs \$4.00 prepaid. **Otto L. Albertson, Nunda, S. D.**

FOR SALE. Silver-Laced Wyandottes. Eggs and baby chicks. **Mrs. Thos. Brady, Lansford, N. D.**

Quality White Rocks

Hatching Eggs and Stock in season. We have the Best. **O. A. Barton, Valley City, N. D.**

mating fowls of one breed for three generations we produce sterility in the egg. They learn that prepotency of sire is more marked in the mating of kindred blood, and in the off-spring of dams of weak constitution, and when appearing in the coupling of radically different blood, that is it an exception and not a rule. They learn that the blood most difficult to subjugate in the end has more lasting quality, and does the flock the most good as a new infusion of blood; these interests, once awakened, cannot slumber; the boys become thoughtful, and, as years increase, you find in them a help not found in your hireling."

I venture to say that such training would keep more boys on the farm,

and would soon teach them independence. Farmers' sons rush to the crowded cities, only later on to regret that they left the farm. They grow tired of the farm for the reason that there was a continual drudgery without any item of interest. They want something they can call their own, and in the crowded cities they believe they can be satisfied.

CHRISTMAS
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School and Home

HOW A PLANT GROWS

By Chore Boy

A plant used roots, leaves, bark and stem in making its growth. An understanding of how it uses these different parts will often aid one in giving the plant the conditions that it needs. For instance, the French have been able to save many of the fruit trees cut down by the retreating Germans. The tree surgery that is so much advertised today is made possible by a knowledge of how the tree grows. Success in grafting is only possible when the laws of plant growth are followed.

The roots of the plant take up moisture and plant food from the soil and start them upward to the leaves. In the leaves the plant food from the soil is combined with the material that the plant takes from the air and by means of the energy secured from the sunshine. This manufactured material is then sent to all parts of the plant and is used in making growth. The moisture and food from the soil passes up in the sap wood or wood just under the bark and the sap moves down in the inner layer of the bark. In grafting this point is taken advantage of. The inner bark of the cions and stock must be brought together. In this way the moisture can move up and the sap down. Removing a piece of the bark clear around the tree girdling will kill it. If mice or rabbits should eat off the bark clear around a tree this can be remedied by grafting,—inserting twigs into the bark above and below the barked place. The bark and sap wood in these twigs furnish the means for the moisture to

pass up and for the sap to move down. This is the method used in saving many trees in France. Trees with smooth bark as apples and mountain ash are subject to sunscald. This is caused in the spring. The sun shining on the bark starts growth and the freezing at night may kill this growth. If it does the bark may loosen and later on cracks open and splits off. This leaves a spot without bark, which may do the tree a great injury. The way to prevent this is to cover the bark on the southwest side of the tree during late winter and early spring. A few corn stalks tied on the trunk is often used with good effect. Burlap or twisted straw can be wrapped around the stem to protect it.

The stem of a plant is for elevating and holding the leaves so that they will receive the best exposure to the sun. In trees and shrubs the stems become woody and live from year to year. In this way the trees have a big advantage over the plants that die down each year. The inside of the stem of a tree is not concerned in the movements of sap or moisture. It serves to make the stem stronger. It is a common observation to see live trees with hollow stems. This, however, weakens the tree so it will break down easier and the decay has in this way a chance to penetrate into the living cells of the tree. Hollow trees can be fixed by carefully scraping out all the rotted material and filling with concrete. The bark will grow against the concrete and thus shut out the entrance of water and rot.

In trimming a tree the branch

should be cut off near the trunk and in a straight smooth cut. When this is done the bark will grow over the cut surface. If a stub a few inches long is left the bark can not grow over it and rot may start down the branch and into the stem, and rot it out. In removing branches make a cut under the branch first and then cut from above. Then when the branch falls it can not tear off a strip of bark.

Weeds harm plants in that they take the same plant food and moisture that the plant needs and also in shading the plant. Plant food, moisture and sunshine are the life of the plant. Anything that robs it of these in any degree hinders the plant that much.

A good supply of readily available plant food in the soil will cause the plant to make a good growth, a more rapid growth and with less moisture. It is like feeding a pig; if the slop is very thin it will have to eat more of it than of a thick slop. That is why it pays to put manure on the land and to grow crops like clover, alfalfa and sweet clover and to rotate the crops. If the plant is to do its best it must have its leaves where the sun can shine on them and it must have its roots in soil that has plenty of moisture and that is well supplied with available plant foods.

Requirements for a Good Chimney

A good chimney is necessary if a good fire is to be kept up. The chimney furnishes the draft that feeds air into the stove or furnace. If the draft is too slow the fire will be sluggish. The strength of the draft depends on the height of the chimney but the volume of air that it carries depends on the area of the flue as well as on the height.

In house heating it has been found that a chimney with an 8 by 12 inch flue will furnish enough draft for a stove or furnace. The chimney should be straight. Any bends in it affect the draft. The chimney should also extend sufficiently far above the roof. The best place for it to come out is at the ridge but if it comes out down on the slope of the roof as shown in the cut then the chimney must be high enough so that the wind cannot sweep over the other side of the roof and down the chimney.

The cut shows a chimney with three flues. The flues marked A and C are connected to the range and furnace while the middle flue is for ventilation. Notice the opening into this middle flue at V. Note too that it is at the floor as that is where the foul air will be the most abundant. A good chimney adds much to the comfort of a home.

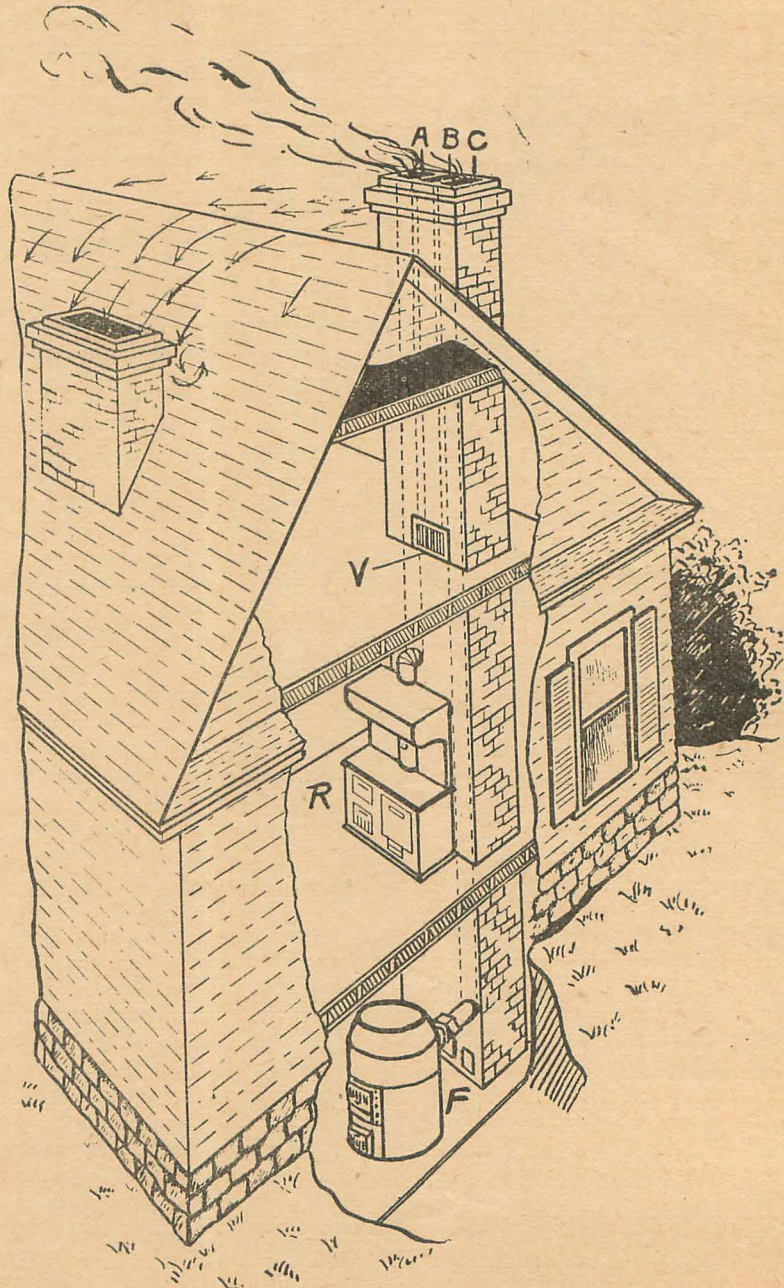
HOW BOYS AND GIRLS MAY HELP KEEP THE BOOKS ON THE FARM.

By W. Clement Moore

Here is something which the farm boy or girl can arrange for father and help him keep it planned out accurately. Make it for him now, and he will appreciate it.

Farmers, in order to be successful in

It is best in practically every line of business, to plan out carefully the work that is to be accomplished in the future. A plan-book is the best solution to this problem—one that may be carried in the vest pocket, similar to the pocket dairy, will answer very well—altho I know some very good farmers who prefer to use a large white card, or calendar back, ruled off in 31 lines and arranged as follows:



their work, should be as systematic as possible, not only in their general business transactions, but in farm operations and management as well. Many good ideas may suggest themselves to the farmer who is always on the alert for methods which will save both time and money.

1. Commence harvesting lower field.
2. Secure extra help and prepare barns to receive harvest.
3.
4. Go to Centreton. See Jones about buying surplus grain direct from field.
5.

6.
7.
8. Pay bill of H. B. Smith, due 10th
9.
10.
11. Write Central Threshing Co. about date for threshing.
12. Arrange for extra help for month of August.
13.
14.
15. See Cartwright about new machine.

This card is hung either in the farm sitting-room or in the farmer's office, if he has one. Thus, being in plain sight, the items and plans are known not only to the farmer but to his help and family, so that in his absence or illness the work goes ahead nicely and without loss, just as he had planned it.

Entries are shown in the illustration for the first 15 days of July, and such entries will, of course, depend entirely upon the kind of work the farmer has to do.

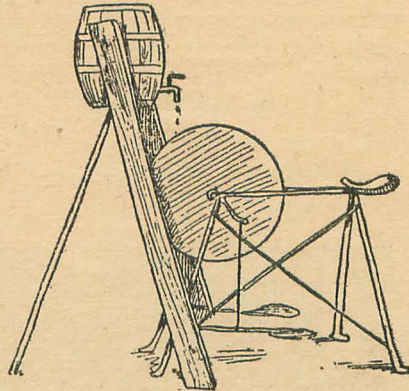
These are simply representative items in one particular case and do not apply to any year in particular, but they show the methods employed by the farmer in order to keep things working smoothly. This farmer is educated, or trained, rather, to his business, and during his leisure moments thinks out and plans ahead to meet the little matters constantly worrying the average farmer and keeping him awake nights.

But in addition to the above mentioned points in favor of such a record, it also saves confusion, poor management and considerable loss of time, which is often the result of doing right things at wrong times, and vice versa.

There is practically no cost at all attached to such a record, and there is no reason why it should not be given a fair trial. Of course if it is hung up as suggested, for all to see, there may be a few personal matters which the farmer would not care to jot down, but this need not matter, as the main purpose of the record is to aid in the management of the work of the farm, anyway. For purely personal or financial matters, the card index system which has been suggested is a good thing.

It is not sufficient, however, to simply rule off the record and jot down a few items on it without a thought or plan. In your quiet house, much care and thought should be given to the planning of your future work, and then having fixed upon a definite plan or idea, the result of your thoughts should be jotted down on the record card, lest the whole purpose of the same be lost or forgotten until too late.

You will not need to think long to recall many cases where you have planned to do certain things about your farm and then forgotten them entirely until it was too late to do the work that year.



A Practical Labor-Saving Device

The plan is one worth the careful attention of every progressive farmer, and one sure to be productive of good. Every farmer can adopt the use of one of these plan-books, in which to keep his farm work carefully planned out thruout the year, a month or two ahead of the operations scheduled all the time. The benefit is in bringing system into the work where in many instances several odd jobs would always be piling up on each other.

FASHION AUTHORIZES MARTIAL COSTUMES

Hats and Boots Follow Suit

Oriental Influences

Last Spring there was a perfect epidemic of military styles, capes, collars, brass buttons, and so forth, and then the mode changed, as modes will, and the summer fashions were the softest, frilliest frills possible to organdies and mulls and that prime favorite, gingham. Now we are having more military costumes, saner they are too, and seemingly more subtle in their resemblance to the uniforms and other toggerly of the men.

Never have brown, army drab, khaki color and navy blue been so much used. Gilt braid, too, abounds on the frocks for afternoon, the most severely plain of all the coat-dresses having a touch of militarism that makes the fashion world akin to the real world. High boots in the lovely mahogany-brown or lighter tan have wide military heels; and there are whispers that woolen stockings, oh, fine, soft, lovely woolen stockings, are replacing the cobwebby silk ones.

As to hats, they, too, are quite martial. One may wear the wide-brimmed, peaked, crowned service-hat

without any feminizing details to disguise it. One may have a cocky little hat (or cap, as you will) borrowed from the boys, with wings. One may wear the drooping cock feathers of the Italian officer or a velvet hat shaped like the cap of the French lieutenant. In fact, one may wear what one pleases, so long as the chosen headpiece be becoming. Trim they are, too, and very fetching, worn at the right angle, with the proper amount of coquetry, but woe to the unwitting damsel with the high pompadour who perches a Tipperary hat on the tip-top of her hair! The result is ridiculous.

Oriental Influences

There are reports of other sources for styles than Paris. The Orient, with its bewildering array of things



© McCall

Of Military Simplicity

mysteriously beautiful, sends us rare color combinations, unusual embroideries and hand-woven materials that are not made elsewhere. One famous house in New York City has sent its buyers to China, Japan and India instead of to Paris, and we can look for some very interesting developments along fashion lines. Of course, now we have the mandarin coat, and other Chinese and Japanese garments occidentalized for our benefit. There seems to be a wave of color worship going broadcast over the land, and everywhere one hears the remark, "I don't care how simple it is, or how little trimming you put on it, if you will just make it beautiful of line and

color." After all, that is the true beauty in dress, as in everything else.

Charm in Simplicity

Just a suggestion for the every-day dress, the dress you must wear for "work or play," as illustrated here. The lines are very good. The high rolling collar and long tight sleeves bespeak a businesslike attitude. Of course there are buttons, giving a



The New Vestee Dress

smart double-breasted effect, and the arrangement of the belt is most unusual. Her hat belongs to the times, for it is an aviator's cap, made of the same material as the dress.

News from England

Now they are wearing raid suits in England! Made on the lines considered proper by Red Riding Hood, there is a cozy fur-lined hood on the cloak. These are worn to the theater, or restaurant, for that is the time of night when the air raids are usually made.

The Vestee Dress

The vest has come into its own in the fashions this season, and now we have the vestee dress, as smart as it

can be. The sleeves are attached to the lining, giving still further the effect of a sleeveless vest or jacket to the dress. It is an extremely simple dress; the skirt is straight, being one-piece. Contrasting material is used for the surplice collar and the gauntlet cuffs.

Wool trimming is being used a great deal, and there are knitted collar and cuffs on some of the most attractive walking costumes. Wool flowers, small flat roses, and so forth, are used to trim hats.



One Hundred Prize Winners and Their Escorts at the Institute Held this Month at the Agricultural College.

FUEL PROBLEM SOLVED

You will be interested to know that a new device for burning kerosene oil has been patented and perfected. It can be installed in any type or furnace, hot water or steam heating plants, cook stoves, producing sufficient heat to keep any hotel, apartment house or residence as warm as required in the coldest weather.

The burners are simple to operate and are perfectly safe; there are a great many of them in use in different states.

They can be seen operating in different types of stoves and heating plants at 318 Broadway, Fargo, N. Dak. You are invited to call and see demonstration. Your coal worries will be ended, as soon as you start using the Regal Burner.

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Adv.

BOY CORN GROWERS

One thousand boys and girls, winners in an Ohio State corn growing contest, were guests of New York December 8. The corn growers visited the American Museum of Natural History, and were introduced to Dr. G. Clyde Fisher, associate curator.

The visitors were particularly interested in the exhibits of Mandan corn, first grown by the Mandan Indians. It is the best known cold-resisting variety. Thru its development millions of bushels have been added to the American crop. One boy visitor raised 148 bushels of corn to the acre, with a net profit of \$175.

ANNUAL PRIZE OFFER

The publisher of the North Dakota Farmer offers to the member of the Boys' and Girls' Institute writing the best account of the Institute five dollars in gold, and to every one of the members who send in a write-up a year's subscription to the North Dakota Farmer. Watch for the winning account in the January number. It is a pleasure to encourage this enterprise. May it be the means of spreading the gospel of "corn, alfalfa, pigs and rye" thruout the entire state.



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SCHOOL LAWS

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HOUSEHOLD HINTS

Cold applications, or ice poultices are usually called for in localized infections such as boils and abscesses, or where there is a pus formation.

Make a syrup of white sugar and water; throw in some stick cinnamon; have sour apples pared and quartered, and when the syrup boils, put in the apples and boil till tender.

Whether to apply heat or cold to inflamed joints is a question best solved by the patient himself. Use whichever is most comfortable. Be sure to dry the joint thoroly after the compress has been removed.

When a splinter has been driven deep into the hand, it can be extracted by steam without pain. Fill a wide-mouthed bottle almost to the top with hot water; then, place the injured part over the mouth of the bottle and press lightly. The suction will draw the flesh down, and in a minute or two the steam will extract the splinter and relieve the inflammation.

Many and various are the uses of salt, either for increasing or altering flavors or for medicinal purposes, etc. For instance, salt added to cooked fruit, especially in pies, brings out the flavor of the fruit; a little salt added to bread and milk, and other milky diets renders them far more easy of digestion; warm water and salt inhaled thru the nostrils, will cure a cold in the head; and an occasional pinch of salt gives great relief when the throat is inflamed, and checks if it does not cure a cough. A glass of warm or cold salt water the first thing in the morning has an excellent effect on the health, and eyes that are tired or weak, may be bathed in tepid salt water.

A pound of eggs means about eight or nine, depending upon size and weight of shell. If eggs have about thirteen per cent and meat eighteen per cent, it would require about a dozen eggs to furnish as much proteid as a pound of meat. One might eat a half pound of meat, but scarcely six eggs. Yet when one takes an egg and a cup of milk, and makes a custard, the proteid is increased. This should say to the housekeeper: if I have a cream soup, roast of beef and baked custard for dinner, it is not a well balanced meal, while if I have a thin soup and a vegetable stew, I can have baked custards for dessert.—Ex.

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For the first time since 1911 has the State published a volume of the School Laws, and not until 1919 will another edit'on be printed by the State.

WOULD YOU KNOW

For what reasons a pupil may be suspended or expelled?
Whether one is allowed to read the Bible in school?
What branches must be taught every day?
For what purposes the school house may be used?
Who may vote on school matters and what are the voters' qualifications?
How schools may be consolidated?
What recourse one has if he is not satisfied with the ratings of the examining board?
Whether free text-books may be adopted without a vote?
What to do when a pupil or parent disturbs the school?
What provision is now made for transportation of pupils?
How pupils may be compelled to attend school?
Whether children may be employed in stores and factories?
How a certificate may be revoked?
What the law is regarding drinking cups, fire escapes, hitching posts, school libraries, pension fund, accredited diplomas, etc.?

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Seasonable Receipts

Mrs. Sadie Baird, Editor

LIBERTY CANDIES

Pop-corn Candy

For making pop-corn candy either honey, maple syrup, molasses, white cane syrup or corn syrup may be used instead of sugar. To one cup of syrup allow one tablespoon of vinegar. Boil together until syrup hardens when dropped in cold water. Pour over freshly popped corn and mold into balls or fancy shapes for the Christmas tree. Little pop-corn men will please the children. Mark in the features and outlines with melted chocolate.

Crystallized Fruits

Use your own preserves. Peach, pear, apple, quince or watermelon rind will do. Drain from the fruit all syrup possible. Cut any size desired, sprinkle with sugar, and dry in the warmer or a very slow oven. It may be necessary to sprinkle the fruit again with sugar during the drying. When dry enough not to be at all sticky, sprinkle with sugar and pack in layers with wax paper.

CANNED CHICKEN

A good way to handle the chickens to be used on the table is to can them. This can be done at any con-

venient time or when they have reached the desired size. Draw as soon as killed, wash carefully and cool. Cut into convenient sections, place in wire baskets or cheesecloth and boil till meat can be pulled from bones. Remove meat from bones; pack closely into glass jars; fill jars with pot liquid after it has been boiled down one-half; add one level teaspoonful of salt per quart of meat for seasoning; partially seal jars; set on a rack in a vessel with water enough to cover jar 1 inch and boil 3 hours, then seal tight.

EAT COTTAGE CHEESE—SAVE MEAT

There is skim milk on every farm where cows are kept.

Skim milk is easily made into cottage cheese. A gallon makes 1 1-2 pounds.

Cottage cheese is one of the best substitutes for meat, not only because of its food value but also because from it dishes can be made which fit into our meals as meat does.

There are more than 5,000,000 farms which keep dairy cows. A pound of cottage cheese each week made on each of these farms and used in place of meat would mean a quarter of a

billion pounds more meat available each year for emergency uses.

If there is only a little skim milk, make cottage cheese from it and use it at home. Many farmers have skim milk enough to make cottage cheese for home use and to supply families in near-by towns. The United States Department of Agriculture urges that the cottage-cheese maker and the cottage-cheese user get together.

Cottage cheese can be used alone in salads, as cottage-cheese loaf, and in many other attractive dishes.

Turn waste skim milk into a valuable meat substitute.

AN UNUSUAL BOSTON BROWN BREAD

One cupful of rye meal, one cupful of corn meal, one cupful of graham flour, three-fourths cupful of molasses, two cupfuls of sour cream or one cup of sour cream and one cup of sour milk, one teaspoonful of salt, two teaspoonfuls of soda. Steam three and one-half hours.

Put the cream, or milk and cream, into the bread mixer (or mix in the usual way), reserving only enough milk to dissolve the soda. Add the salt and molasses and stir a few times. Then add the flour, and the soda, dissolved in a little milk. Stir thoroly and pour into a tin with a funnel thru the middle and steam steadily for three and one-half hours.

INDIAN PUDDING

Scald one cup of meal in one quart of milk; when cool, add two eggs, one-half cup of sugar or molasses, one teaspoonful of allspice, one quart of milk, a pinch of salt. Bake slowly for three hours. Serve with maple syrup or cream.

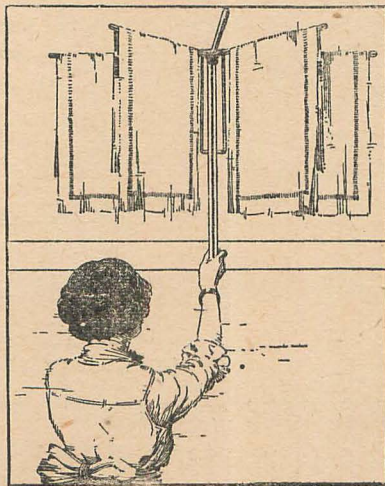
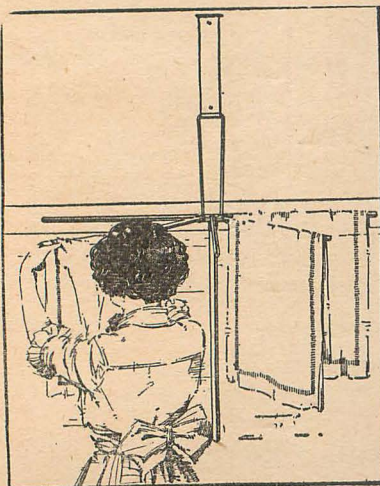
RYE BREAD

Make a sponge of one quart of warm water, one teacup of wet yeast, thickened with enough rye flour to make a batter, and put it in a warm place to rise over night; in the morning, scald a pint of corn meal; when cool, add it to the sponge. Stir in enough rye flour to make the dough thick enough to knead, knead but little, let it rise, mold into loaves, put them in deep pie-tins, and let them rise and bake.

BREAKFAST COFFEE CAKE

Take a piece of bread dough and add one-half cup of sugar and a tablespoonful of melted butter, then roll out an inch thick and put on a greased pie-pan, brush the top with

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melted butter and cover thick with cinnamon and sugar; let it rise and bake quick. Cut it in long, narrow strips to serve. Eat hot or cold. It is nice if made Saturday with the other baking, to use Sunday morning breakfast.

Parker House Rolls

One teacupful of yeast, one tablespoonful of sugar, a piece of lard the size of an egg, one pint of milk, flour enough to make a stiff batter.

Put the milk on the stove to scald, with the lard in it. Mix the salt, sugar and yeast into the flour. Add the milk, being careful not to put it in too hot. Knead thoroly when mixed at night, and only slightly the next morning. Roll out an inch thick, and cut out with a large-sized biscuit-cutter. Spread a little butter on each roll and lap together. Let them rise very light, then bake in a quick oven.

Apricot Float

One pint crushed apricots; 2 eggs; 2 cups pulverized sugar; 1 pint milk; vanilla and almonds.

Rub apricots thru collander. Separate eggs. Beat the whites to stiff froth and add sugar. Add crushed apricots gradually until the whole is a stiff pile of yellow cream.

Make soft custard with the two eggs, yolks, milk and sugar and vanilla to taste. Pour over the puff or serve in separate dish. Ornament with almond daisies.

Raised Cake

(New England Receipt)

Three full cups light brown sugar; one full cup butter and lard; one cup sweet milk; one teaspoonful cinnamon. Make sponge with one yeast cake, and two-thirds cupful warm water, not too stiff.

When light add one scant teaspoon soda. Add flour till the mixture drops slowly from the spoon. Before stirring in flour add two cups seeded raisins. Bake one hour, ten minutes with very slow fire.

GOODIES FOR THE CHRISTMAS SEASON

Plain Fudge

Melt two squares of unsweetened chocolate over hot water. Add two cupfuls of light-brown or A sugar, a

round tablespoonful of butter, half a cupful of milk, and a trace of salt. Cook for twelve minutes after boiling begins, but do not allow the boiling to be too violent or the sugar will crystallize against the sides of the pan and precipitate granulation of the whole. Take from the fire and stand in a pan of cold water, and beat steadily till thick. Add one teaspoonful of vanilla and turn out on a buttered platter. Mark before it is too stiff. For maple fudge use maple sugar.

Pinuchi

Four cupfuls of light brown sugar, two rounded tablespoonfuls of butter, and one cupful of cream. Stir until the sugar is melted, then boil until a soft ball forms when a spoonful is dropped in cold water. Take from the fire and beat till thick, adding a cupful of pecan meats as thickening begins. Turn out on a buttered platter.

Molasses Taffy

Two cupfuls of dark molasses, two cupfuls of brown sugar, one cupful of water, two rounded tablespoonfuls of butter, three tablespoonfuls of vinegar, a pinch of baking-soda, and half a teaspoonful of cream of tartar. Cook the molasses, sugar, water, and vinegar to the boiling-point. Add the cream of tartar, and boil until it is very brittle when dropped in cold water. Add the butter and soda. Pour into a pan or on a greased marble slab. Pull when sufficiently cool to handle.

LEFT-OVER DISHES

Macaroni

Left-over macaroni cheese may be utilized. Add strained tomato-juice, a seasoning of onion, salt, cayenne. Stew till the tomato flavor has superseded the cheese.

Creamed Potatoes

Do not make a sauce. Dice left-over boiled potatoes, sprinkle with flour, salt, pepper, dots of butter, and pour in milk almost to cover. Set on the back of the range and simmer gently till thickened.

Salmon Timbales

Heat one cupful of canned salmon with one and one-half cupfuls of white sauce. Add the yolks of two eggs and one-half cupful of soft bread-crumbs. Season with salt, cayenne and a tablespoonful of lemon juice. Beat the whites of the eggs stiff, fold in the fish mixture, fill into little baking-dishes or individual molds, set in a pan of hot water, and bake twenty minutes. Serve with white sauce.

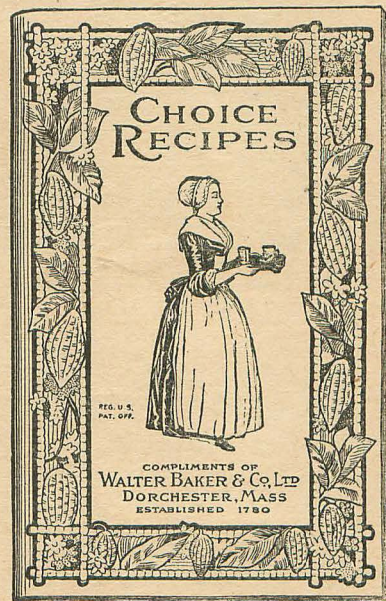
Chicken Patties

Make a sauce according to the regular rule for sauces and gravies. Cut out pie paste into individual shells with covers, and bake. Mix the cold boiled chicken, diced, with the sauce, heat separately, fill into the hot patty shells and serve. The addition of cooked mushrooms is a great improvement.

Chowder

Left-over fish, fat, salt pork—a one-inch cube—cooked potatoes, onions, butter, one quart of milk, soda crackers, seasoning. The amount of each ingredient depends largely upon what one has on hand. A tablespoonful of butter is always enough for any family dish where sauce or thickening is required, and receipts calling for onion infer that the latter will be cooked in the butter till soft, but not burned. Simmer gently for twenty minutes all the chowder materials arranged in layers except the crackers. Do not mash the ingredients together. Pour chowder on crackers when serving.

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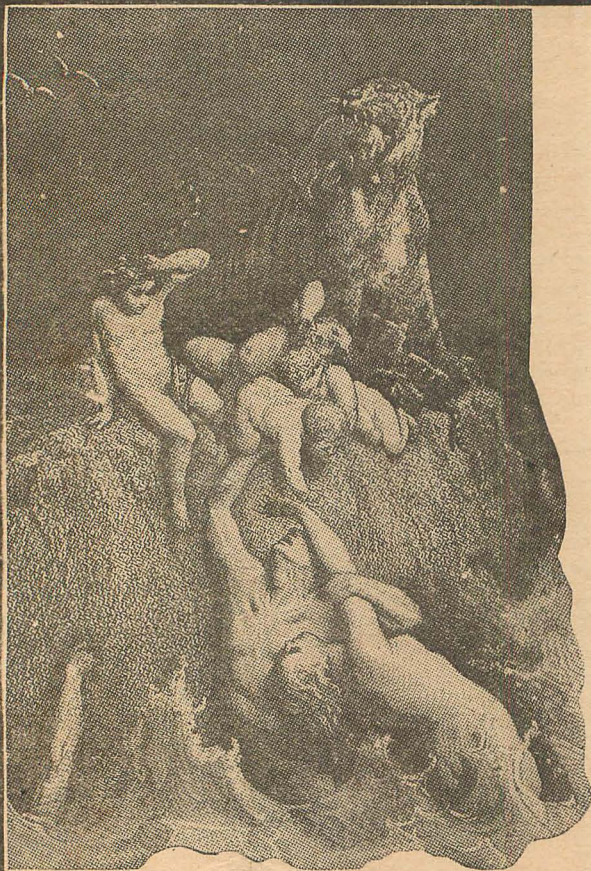
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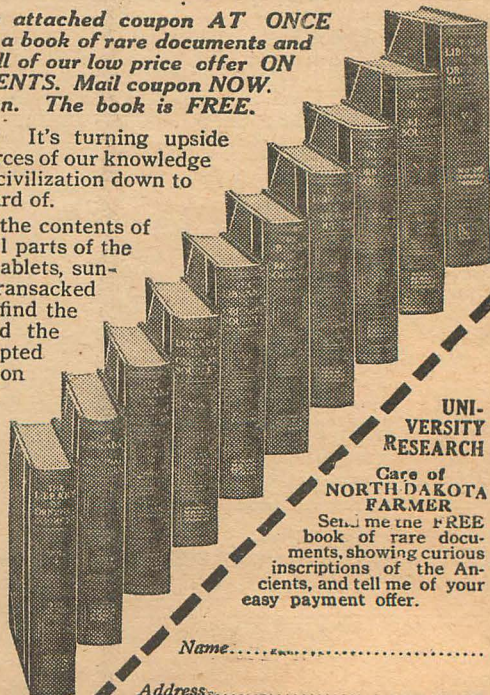
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